

CHAPTER 12: PROPOSED PHASE III EARLY RESTORATION PROJECTS: FLORIDA (continued)

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12.30 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description A (City of Mexico Beach Marina Project)

12.30.1 Project Summary

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of Mexico Beach Marina) project would improve the existing Mexico Beach Canal Park boat ramp in the City of Mexico Beach. The proposed improvements include replacing the boardwalk dock with a concrete surface and increasing the width, removing and replacing eighteen existing finger piers, and replacement of the existing retaining wall. The total estimated cost of the project is \$1,763,554.

12.30.2 Background and Project Description

The Trustees propose to improve and enhance an existing boat ramp at the Mexico Beach Canal Park the City of Mexico Beach (see

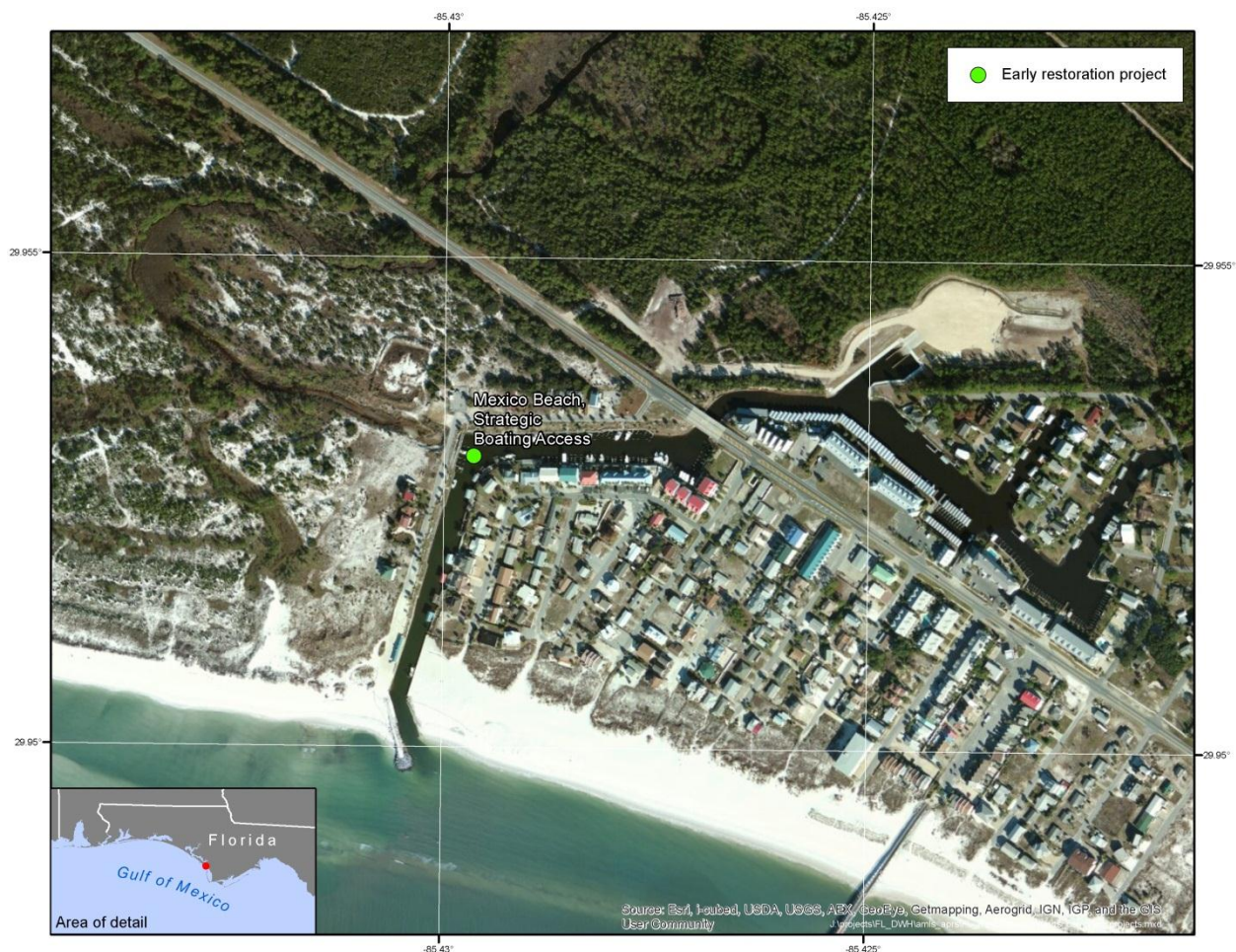


Figure 12-1 for general project location). This project builds on an ongoing effort initiated by the FWC through its Florida Boating Improvement Program which, in part, is used to fund applications from local governments in a competitive grant process for boat access improvement projects in remote areas, small towns and cities, and coastal counties (for more information on the program see <http://myfwc.com/boating/grant-programs/fbip/>).

The objective of the City of Mexico Beach Marina project is to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The restoration work proposed includes replacing the boardwalk dock with a concrete surface and increasing the width, removing and replacing eighteen existing finger piers, and replacement of the existing retaining wall.

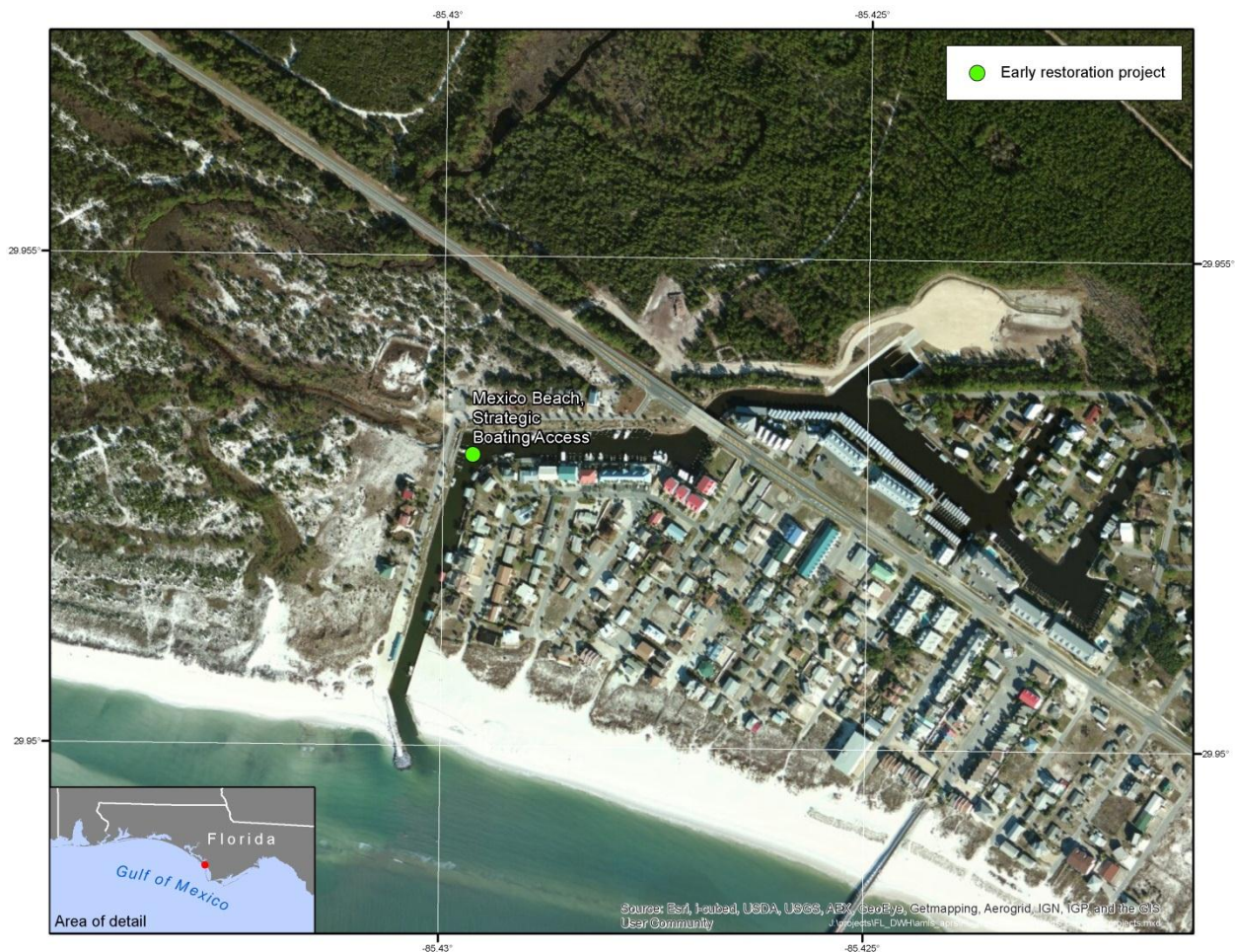


Figure 12-1. Location of FWC Strategic Boat Access Mexico Beach project.

12.30.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of Mexico Beach Marina) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented result. Further, the project can be implemented with minimal delay. Agencies have successfully completed projects of similar scope throughout Florida over many years, including similar types of actions in earlier phases of the Deepwater Horizon Early Restoration. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework

Agreement. Furthermore, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.30, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.30 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (<http://www.gulfspillrestoration.noaa.gov>) and to the State of Florida (<http://www.deepwaterhorizonflorida.com>). In addition to meeting the criteria for the Framework Agreement and OPA, the Florida FWC Strategic Boat Access: City of Mexico Beach Marina project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.30.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the existing marina. Performance monitoring will evaluate: 1) the repair of the existing retaining wall; 2) the replacement of a number of the existing finger piers; and 3) the improvement of the existing boardwalk. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the marina is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by the City of Mexico Beach as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by the City of Mexico Beach.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of Mexico Beach will monitor the recreational use activity at the site. City of Mexico Beach staff will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.30.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Strategically Provided Boating Access along Florida's Gulf Coast project, of which this is a component, are \$6,496,680 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.¹

12.30.6 Costs

The total estimated cost to implement this project is \$1,763,554. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of publication of the Final Phase III ERP/PEIS. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

¹ For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.31 Strategically Provided Boat Access along Florida's Gulf Coast: Environmental Review A (City of Mexico Beach Marina Project)

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of Mexico Beach Marina Project) would improve the existing Mexico Beach Canal Park boat ramp in the City of Mexico Beach. The proposed improvements include replacing the boardwalk dock with a concrete surface and increasing the width, removing and replacing eighteen existing finger piers, and replacement of the existing retaining wall.

12.31.1 Introduction and Background

In April 2011, the Natural Resource Trustees (Trustees) and BP Exploration and Production, Inc. (BP) entered into the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement). Under the Framework Agreement, BP agreed to make \$1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is underway. The Framework Agreement is intended to expedite the start of restoration in the Gulf in advance of the completion of the injury assessment process. Early restoration is not intended to, and does not fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement), the Trustees released, after public review of a draft, a Phase I Early Restoration Plan (ERP) in April 2012. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, the National Oceanic and Atmospheric Administration (NOAA) issued a public notice in the Federal Register on behalf of the Trustees announcing the development of additional future Early Restoration projects for a Draft Phase III Early Restoration Plan (ERP). This boat ramp project was submitted as an Early Restoration project on the NOAA website (<http://www.gulfspillrestoration.noaa.gov>) and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and the Oil Pollution Act (OPA), the project meets Florida's criteria that Early Restoration projects occur in the eight-county Florida panhandle area that deployed boom and was impacted by the Spill.

The existing Mexico Beach City Marina is the only public marina that is located within the coastal community of Mexico Beach. The other marinas that are located within a ten mile radius of the proposed project are classified as private marinas. These private marinas require ownership of residential property at the facility in order to obtain a boat slip. This creates issues for residents and visitors of Mexico Beach when trying to obtain a boat slip for rental. During the peak season of the year and during special events that the City of Mexico Beach holds, such as fishing tournaments and major holidays, the existing marina operates at full capacity and has to turn away customers due to the lack of available boat slips.

The existing marina is equipped with fifty-five total usable boat slips, and five-foot wide boardwalk docks that are attached to finger piers for boat access. As part of the canal improvements, 18 of these narrow finger piers would be removed and replaced with 3' wide piers. This would enhance 36 of the

existing slips. Also included in the proposed improvements is the replacement of the boardwalk dock with a concrete surface and an increase in width to 6' wide.

The City of Mexico Beach is a rapidly growing tourist city which receives around 10,000 visitors annually. Many of these visitors bring their boats with them on vacation but are faced with a lack of docking facilities throughout the city. With the improvement of this facility, there would be an increase in accessibility and convenience for the visitors whether they decide to house their boat at the marina while in town or leave it for the year when they travel back home.

With the addition of these boat slips and added docks, boater safety on the canal would also be improved. Boat slips would be constructed with the added safety precaution of reflector markers located on the end of each finger pier. This would enhance the visibility of the boat slips when entering the canal. In addition to enhancing safety, the proposed improvements would provide an environmental benefit by replacing an existing retaining wall that currently leaks sand into the canal.

The total estimated cost to implement this project is \$1,763,554. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

12.31.2 Project Location

The project is located at Canal Drive on the west side of U.S. Highway 98, along the north and west boundaries of the Mexico Beach Canal in Mexico Beach, Bay County, Florida, in Section 22, Township S, Range 12-W, at Latitude: 29° 57' 11.60" North and Longitude: -85° 25' 42.86" West. The activities to occur along the northern and western side of the Mexico Beach Canal from U.S. Highway 98 to the mouth of the canal. The Mexico Beach Canal is located north of Saint Joseph Bay and has direct access to the Gulf of Mexico (



Figure 12-2).

12.31.3 Construction and Installation

The proposed City of Mexico Beach Marina project consists of constructing a 1,700 LF steel sheet pile retaining wall approximately 2 feet in front of the existing wooden retaining wall on the northern and western side of the canal. It is anticipated that the sheet pile wall will be driven in place. The new sheet pile wall will be placed waterward of the existing timber wall and will therefore involve in-water work including some mix of workboats for positioning and during the driving. However, the plans do not specify the means of construction and whether the equipment used for the driving of the sheet pile will be in-water or positioned in the adjacent upland area although the expectation is most of this work will take place from upland areas given the canal's relatively narrow width.



Figure 12-2. Vicinity and project location.

After placement of the retaining wall, approximately 440 cubic yards of clean fill material (free of vegetative material, trash, garbage, toxic or hazardous waste or any other unsuitable materials) would be used to fill the space between this new retaining wall and the shore. This retaining wall work would address the leaking of sand from behind the current retaining wall into the canal. As part of this work, the existing boardwalk dock running along the current retaining wall would be removed and replaced with a concrete sidewalk located behind the proposed new steel sheet pile retaining wall. This would allow for an increase in the boardwalk width to 6'.

The project would also include replacing 18 existing finger piers and creating 8 new finger piers that would be located along the northern and western edge of the canal. The existing 18 piers that would be replaced would be 16 feet long and 3 feet wide with a terminal piling being installed 19.5 feet from the canal edge. The boat slips would be 35.5 feet long. This would enhance 36 of the existing 55 boat slips in the marina. As part of this work up to 70 wood pilings 8" in diameter and as many as 250 12" in diameter wood pilings are to be placed. These pilings will be placed by water jetting or impact driving. All of the 12" diameter wood pilings will be replacing existing pilings. As a result, there will be up to 270 piles that will be removed and replaced as part of the project. These pilings will be removed using heavy equipment (e.g., cranes/excavators) most likely based on upland areas. All removed pilings will be appropriately disposed of.

During construction, turbidity barriers would be installed with weighted skirts that extend to within one foot of the bottom around all work areas that are in, or adjacent to, surface waters. These turbidity barriers would remain in place and be maintained until the authorized work has been completed and all erodible materials have been stabilized. Similarly, best management practices for erosion control would be implemented and maintained in upland areas at all times during construction to prevent siltation and turbid discharges into surface waters. Methods for this control would include but are not limited to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; and staged construction. The erosion control measures would remain in place and be maintained until all authorized work is completed and the site has been stabilized.

Development of final plans will also incorporate the guidance and requirements set forth in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) should an SAV survey indicate sea grasses are located in the project area for the proposed pier work. Among other impacts, implementing these guidelines would require pilings for the dock expansion be placed a minimum of 10 feet apart.

During all in-water work, including transit to the project site, the measures within the *Vessel Strike Avoidance Measures and Reporting for Mariners* relevant for this project would be implemented. These measures, addressing vessel strike avoidance and reporting injured or dead animals, include:

Vessel Strike Avoidance

In order to avoid causing injury or death to marine mammals and sea turtles the following measures should be taken when consistent with safe navigation:

1. Vessel operators and crews shall maintain a vigilant watch for marine mammals and sea turtles to avoid striking sighted protected species.
2. When whales are sighted, maintain a distance of 100 yards or greater between the whale and the vessel.
3. When sea turtles or small cetaceans are sighted, attempt to maintain a distance of 50 yards or greater between the animal and the vessel whenever possible.
4. When small cetaceans are sighted while a vessel is underway (e.g., bow-riding), attempt to remain parallel to the animal's course. Avoid excessive speed or abrupt changes in direction until the cetacean has left the area.
5. Reduce vessel speed to 10 knots or less when mother/calf pairs, groups, or large assemblages of cetaceans are observed near an underway vessel, when safety permits. A single cetacean at the surface may indicate the presence of submerged animals in the vicinity; therefore, prudent precautionary measures should always be exercised. The vessel shall attempt to route around the animals, maintaining a minimum distance of 100 yards whenever possible. NMFS Southeast Region Vessel Strike Avoidance Measures and Reporting for Mariners; revised February 2008.
6. Whales may surface in unpredictable locations or approach slowly moving vessels. When an animal is sighted in the vessel's path or in close proximity to a moving vessel and when safety permits, reduce speed and shift the engine to neutral. Do not engage the engines until the animals are clear of the area.

Injured or Dead Protected Species Reporting

Vessel crews shall report sightings of any injured or dead protected species immediately, regardless of whether the injury or death is caused by your vessel.

Report marine mammals to the Southeast U.S. Stranding Hotline: 877-433-8299

Report sea turtles to the NMFS Southeast Regional Office: 727-824-5312

If the injury or death of a marine mammal was caused by a collision with your vessel, responsible parties shall remain available to assist the respective salvage and stranding network as needed. NMFS' Southeast Regional Office shall be immediately notified of the strike by email (takereport.nmfs@noaa.gov) using the attached vessel strike reporting form.

In addition, the best management practices identified within the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) will be implemented during periods of in-water work.

In addition, beach areas adjacent to the project site will be avoided during construction as these are designated critical habitat areas for the St. Andrews beach mouse. Specifically, no staging will occur on the beach or within the dunes, including critical habitat. Fencing/signage/barriers will be used to ensure no equipment or material is inadvertently placed/stored in the dune area during the project implementation period. Finally, while no lighting is proposed, if it becomes necessary, it will comply with the latest edition of the FWC Technical Lighting Manual.

The project is anticipated to be completed within two years of its start with up to a year of in-water work.

12.31.4 Operations and Maintenance

Long-term monitoring and maintenance of the improved facilities would be completed by the City of Mexico Beach as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by the City of Mexico Beach.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager would go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of Mexico Beach would monitor the recreational use activity at the site. City of Mexico Beach staff would visit the site twice a year to count the number of users at the boat ramp. The visitation numbers would then be provided to the Florida Department of Environmental Protection.

12.31.5 Affected Environment and Environmental Consequences

Under the National Environmental Policy Act, federal agencies must consider environmental effects of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.31.5.1 *No Action*

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.31.5.2 *Physical Environment*

12.31.5.2.1 *Geology and Substrates*

Affected Resources

The project lies in the Gulf coastal lowlands physiographic province (Allen and Main 2005). The landscape of this region is comprised of a relatively flat terrain, ranging in elevation from 0 to about 50 feet above mean sea level. Soils in the coastal panhandle of Florida consist predominately of medium to fine grain sands and silts associated with recent Pleistocene formations (Schmidt et. al. 1980).

The soils in the project area have been identified and mapped by the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS). The NRCS data identified Arents, 0 to 5 percent slopes as the only soil united mapped within the project area (NRCS 2013). The Arents soils consist of manmade land mixed by earth-moving operations, including cutting, leveling, dredging, or filling activities or any combination of these operations (USDA 1984). Slopes are smooth. These soils are a mixture of different soils types and fill. Depth to water table is variable in these soils. Permeability is variable. Natural fertility is generally low.

Environmental Consequences

No adverse impacts to local geology, soils, and sediments associated with the project would be anticipated. The majority of the project would take place over water and appropriate erosion control and mitigation measures would be implemented prior to construction. Impacts to geology and substrates would be minor. Overall, the project's impacts related to soil compaction and erosion during construction would be minor and in the long term, the project would not be expected to adversely impact geology, soils, or substrates.

12.31.5.2.2 *Hydrology and Water Quality*

Affected Resources

There is an abundant supply of both surface and groundwater along the coastline of the Florida panhandle. The project is located within the St. Andrew-St. Joseph Bays Watershed. The canal on which it is located flows into the Gulf approximately 6 miles north of St. Joseph Bay. Ground water in Bay County exists under both unconfined and confined aquifers. The unconfined water table aquifer is composed primarily of quartz sand and gravel and varies in thickness, while the confined aquifer is generally the larger Florida Aquifer System. The water table range from near surface to 65 feet below land surface.

A review of the National Wetland Inventory (NWI) wetland mapper did not identify any wetland within the project site (USFWS NWI 2013). It did identify the open water of the canal. The canal varies in width from approximately 50 to 120 feet.

Environmental Consequences

The proposed project has been approved by USACE and a permit issued (Permit No: SAJ-2010-02882 (IP-DNA)). Both the Florida Department of Environmental Protection (FDEP) and USACE permits require mitigation and as a result, impacts to water quality are expected to be minimal. All permit conditions requiring mitigation measures for siltation, erosion, turbidity and release of chemicals would be strictly adhered to. During construction, Best Management Practices and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts. The FDEP permit conditions require erosion and turbidity mitigation measures. These include:

- Install floating turbidity barriers
- Install erosion control measures along the perimeter of all work areas
- Stabilize all filled areas with sod, mats, barriers or a combination
- If turbidity thresholds are exceeded the project must stop, stabilize the soils, modify the work procedures, and notify the FDEP.

The FDEP permits also constitute a Certification of Compliance with State Water Quality Standards under Section 401 of the Clean Water Act, which means that the project would comply with state water quality standards and other aquatic resource protection requirements. After construction, increased boat traffic on the canal would result in minimal impacts to surface water quality.

Impacts from chemicals that could potentially be released from sources such as construction equipment and boats are expected to be negligible. Required spill containment measures would be implemented for applicable construction activities. FDEP permits require spill containment protection and mitigation measures such as:

- No boat repair or fueling facilities over the water,
- Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting.

Best management practices along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts associated with construction activities. Best Management Practices for erosion control would be implemented and maintained at all times during construction to prevent siltation and turbid discharges into waters of the state. Silt and sedimentation control measures would be installed and properly maintained to protect water quality resources. Given that there would be no substantial change in uses at the project site following implementation of the proposed enhancement activities, it is anticipated that there would be no long-term negative impacts to water resources. The implementation of the proposed project would therefore result in short-term minor negative impacts on water resources. This project would not impact groundwater. There would be no adverse impacts to hydrology or water quality.

The proposed discharge of dredged or fill material into waters of the United States, including wetlands, or work affecting navigable waters associated with this project is currently being coordinated with the U.S. Army Corps of Engineers (Corps) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA). Coordination with the Corps and final authorization pursuant to CWA/RHA will be completed prior to project implementation.

Overall, potential impacts to water resources are expected to be minor, temporary and localized in nature.

12.31.5.2.3 Air Quality and Greenhouse Gas Emissions

Affected Resources

The Clean Air Act (CAA) requires the State of Florida to adopt ambient air quality standards to protect the public from potentially harmful amounts of pollutants. Six common air pollutants (also known as "criteria pollutants") are regulated by USEPA and the states under the CAA. They are particle pollution (often referred to as particulate matter), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. The FDEP has designated areas meeting the state's ambient air quality standards by their monitoring and modeling program efforts, (i.e., attainment areas). Florida has no nonattainment areas within the panhandle region.

Currently, Bay County is classified by USEPA as an attainment area in accordance with the National Ambient Air Quality Standards (NAAQS). Mexico Beach is not within a USEPA Class 1 air quality area; however, St. Marks National Wildlife Refuge, located approximately 72 miles to the east, is designated as a Class I air quality area (USEPA 2013a). Class I air quality areas are afforded special protection under the Clean Air Act. Any proposed new or modified sources of air pollution locating within approximately 200 miles (300 km) of a Class I air quality area are asked to consult with the Federal Land Manager to determine whether emission impact modeling to the Class I area should be conducted and submitted to the Federal Land Manager for review (USFWS 2013).

Beginning in 2011, the CAA also regulates emissions of greenhouse gases (GHG) (USEPA 2013b). The USEPA's GHG Reporting Rule establishes mandatory GHG reporting requirements for sources that emit 25,000 metric tons or more of carbon dioxide equivalent (CO₂e) per year (USEPA 2013b).

Environmental Consequences

Project implementation would require the use of boats as well as barge-mounted and land-based heavy equipment for up to 8 hours per day over a 2-year construction period. This would temporarily affect air quality and elevate greenhouse gas levels in the project vicinity due to emissions and increased dust from operation of construction vehicles and equipment. Any air quality impacts that would occur would be localized, limited to the construction phase of the project, and limited by the size of the project. Therefore, impacts to air quality would be negative but minor and short-term. The project would have no long term impacts on air quality.

Engine exhaust from pile drivers, bulldozers, trucks, and backhoes would contribute to an increase in greenhouse gas emissions. Table 12-1 describes the likely greenhouse gas emission scenario for the implementation of this project.

Table 12-1. Greenhouse gas impacts of the proposed project.

CONSTRUCTION EQUIPMENT	NO. OF HOURS OPERATED ²	CO ₂ (METRIC TONS) ³	CH ₄ (CO ₂ E) (METRIC TONS) ⁴	NO _x (CO ₂ E) (METRIC TONS)	TOTAL CO ₂ E (METRIC TONS)
Pile Driver	3840	139.2	0.048	0.48	139.73
Bulldozer	3840	163.2	0.096	0.96	164.26
Backhoe (2)	7680	336	0.192	1.92	338.11
Dumptruck ⁵	3840	163.2	0.096	0.96	164.26
Cement Truck	3840	163.2	0.096	0.96	164.26
TOTAL					970.62

Based on the assumptions described in Table 12-1 above, GHG emissions would not exceed 25,000 metric tons per year. Given the projected construction-phase GHG emissions, along with the small scale and short duration of the project, predicted impacts from greenhouse gas emissions would be short-term and minor.

12.31.5.2.4 Noise

Affected Resources

Noise can be defined as unwanted sounds and sound levels, and its impacts are interpreted in relationship to impacts on nearby persons and wildlife. The Noise Control Act of 1972 (42 U.S.C. 4901 to 4918) was enacted to establish noise control standards and to regulate noise emissions from commercial products such as transportation and construction equipment. The standard measurement unit of noise is the decibel (dB), which represents the acoustical energy present. Noise levels are measured in A-weighted decibels (dBA), a logarithmic scale which approaches the sensitivity of the human ear across the frequency spectrum. A 3-dB increase is equivalent to doubling the sound pressure level, but is barely perceptible to the human ear. Table 12-2 shows typical noise levels for common sources expressed in dBA. Noise exposure depends on how much time an individual spends in different locations.

² Emissions assumptions for all equipment based on 480 8-hour days of operation per piece of equipment over a 24-month construction period.

³ CO₂ emissions assumptions for diesel and gasoline engines based on USEPA 2009.

⁴ CH₄ and NO_x emissions assumptions and CO₂e calculations based on USEPA 2011.

⁵ Construction equipment emission factors based on USEPA NONROAD emission factors for 250hp pieces of equipment. Data was accessed through the California Environmental Quality Act Roadway Construction Emissions Model.

Table 12-2. Common noise levels.

NOISE SOURCE OR EFFECT	SOUND LEVEL (DBA)
Rock-and-roll band	110
Truck at 50 feet	80
Gas lawnmower at 100 feet	70
Normal conversation indoors	60
Moderate rainfall on foliage	50
Refrigerator	40
Bedroom at night	25

Source: Adapted from BPA 1986, 1996

Noise levels in the project area vary depending on the season, time of day, number and types of noise sources, and distance from noise sources. Existing sources of noise in the project area include motor vehicle traffic on Highway 98, recreational boating, commercial vessels, overhead aircraft and ambient natural sounds such as wind, waves, and wildlife.

Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise sources or levels due to the project. Noise-sensitive receptors in the project area include residential communities, resort properties, beach recreational use and wildlife.

Environmental Consequences

Instances of increased noise are expected during the construction phase associated with the restoration project. The proposed project would generate construction noise associated with equipment during removal of the existing catwalk, installation of sheet piles, placement and grading of fill material, and construction of piers. Construction equipment noise is known to disturb fish, marine mammals and nesting shorebirds (discussed below). Construction noise would also create a potential nuisance to visitors and residents in areas adjacent to project construction activities. Construction noise would be temporary and limited to daytime hours, and the construction period is not anticipated to last more than 2 years. Because construction noise would be temporary, negative impacts to the human environment during construction activities would be short-term and minor, as they would likely attract attention but would not result in visitors changing their activities.

After completion of the project, noise sources would be expected to include the existing sources described above, and noise levels would return to pre-project conditions. There exists potential for increased boat and automobile traffic resulting from expansion of the marina, which would result in a slight increase in noise levels in the vicinity. Overall, long-term noise impacts from boating and other recreational activities would remain minor. Likewise, noise impacts from commercial vessels, highway traffic, and ambient natural sounds would be minor.

12.31.5.3 Biological Environment

12.31.5.3.1 Living Coastal and Marine Resources

Protected Species

Protected species and their habitats include ESA-listed species and designated critical habitats, which are regulated by either the USFWS or the NMFS. Protected species also include marine mammals protected under the Marine Mammal Protection Act, essential fish habitat (EFH) protected under the Magnuson-Stevens Fishery Conservation and Management Act, migratory birds protected under the Migratory Bird Treaty Act (MBTA) and bald eagles protected under the Bald and Golden Eagle Protection Act (BGEPA).

Affected Resources

The Trustees have reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA for species managed by USFWS. For this, the Trustees first reviewed the species list for Bay County, Florida⁶. Table 12-3 presents a summary of these potentially affected species/critical habitats and the nature of the potential impact that could result from project implementation.

Table 12-3. Potential Impacts to Species/Critical Habitats managed by DOI

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Green turtle, Hawksbill turtle, Kemp's ridley turtle; Leatherback turtle, Loggerhead turtle	<p>The main risk to sea turtles during execution of this project would come from boat collisions during in-water construction activity which could result in harm or mortality. Consultation has been initiated with NMFS to address this risk as the agency that has jurisdiction to review impacts to sea turtles in the estuarine and marine environments.</p> <p>The habitat in the project area is not suitable for sea turtle nesting and the adjacent beach and shoreline will be avoided by all project activities. No lighting is proposed for the project at this time; however, should lighting become necessary it will be wildlife friendly. No increase in predation is expected due to the conservation measures. Therefore, no impacts to sea turtles in their terrestrial habitats are anticipated.</p>
Loggerhead proposed critical habitat	<p>The proposed City of Mexico Beach Marina action overlaps with the currently proposed critical habitat areas in Florida for Northwest Atlantic Distinct Population Segment of the loggerhead sea turtle (LOGG-N-32) (78 FR 18000) Department of the Interior, 2013). Primary Constituent Elements for proposed loggerhead critical habitat include: 1) Suitable nesting beach habitat that: (a) has relatively unimpeded nearshore access from the ocean to the beach for nesting females and from the beach to the ocean for both post-nesting females and hatchlings and (b) is located above mean high water to avoid being inundated frequently by high tides. 2) Sand that: (a) allows for suitable nest construction, (b) is suitable for facilitating gas diffusion conducive to embryo development, and (c) is able to develop and maintain temperatures and moisture content conducive to embryo development. 3) Suitable nesting beach habitat with sufficient darkness to ensure that nesting turtles are not deterred from emerging onto the beach and hatchlings and post-nesting females orient to the sea.</p> <p>No project activities will occur on the beach in critical habitat. No lighting is proposed for the</p>

⁶The U.S. Fish and Wildlife, Panama City office website (<http://www.fws.gov/panamacity/specieslist.html>) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
	project at this time; however, should lighting become necessary it will be wildlife friendly. Therefore, no destruction or adverse modification of critical habitat will occur.
West Indian manatee	<p>Bay county is not part of the 36 Florida counties that are identified as being counties where manatees regularly occur in coastal and inland waters (U.S. Department of the Interior, 2011). However, manatees could be present in the action area, though it is unlikely.</p> <p>The main risk to manatees during execution of this project would come from construction noise, collision with material or equipment used during in-water construction elements of the project, or boaters using the slips. Conservation measures are designed to avoid and minimize these impacts to an insignificant and discountable level.</p>
Piping plover and red knot	The main risk to piping plovers and red knot is from human disturbance while resting or foraging in habitats adjacent to work areas. The proposed project could result in short term increases in noise/disturbance. The proposed project will not result in any changes to shoreline habitats where either species could be feeding or resting. The new piers are not expected to increase visitor use to a level that would alter nearby habitats and signage would advise visitors or measures to use to protect wildlife during recreation. Therefore, indirect impacts are expected to be insignificant and discountable.
St. Andrew beach mouse	Threats to St. Andrew beach mouse would result from staging materials in habitats and crushing burrows or attracting additional predators to the area. Conservation measures will avoid impacts to this species.
St. Andrew beach mouse critical habitat	<p>Habitat adjacent to the project site is within the SABM-1 East Crooked Island Unit of critical habitat for the St. Andrew's beach mouse. PCE's include: 1) A contiguous mosaic of primary, secondary scrub vegetation, and dune structure, with a balanced level of competition and predation and few or no competitive or predaceous nonnative species present, that collectively provide foraging opportunities, cover, and burrow sites; 2) Primary and secondary dunes, generally dominated by sea oats that, despite occasional temporary impacts and reconfiguration from tropical storms and hurricanes, provide abundant food resources, burrow sites, and protection from predators; 3) Scrub dunes, generally dominated by scrub oaks, that provide food resources and burrow sites, and provide elevated refugia during and after intense flooding due to rainfall and/or hurricane induced storm surge; 4) Functional, unobstructed habitat connections that facilitate genetic exchange, dispersal, natural exploratory movements, and recolonization of locally extirpated areas; and 5) A natural light regime within the coastal dune ecosystem, compatible with the nocturnal activity of beach mice, necessary for normal behavior, growth and viability of all life stages.</p> <p>Conservation measures will ensure there is no adverse modification or destruction of critical habitat.</p>
Gulf sturgeon	NMFS was consulted on Gulf sturgeon and its Critical Habitat in the estuarine environment. As a result, Gulf Sturgeon was not considered in the consultation with the USFWS.

In addition to the protected species managed by USFWS, the Trustees reviewed the proposed projects and associated actions for potential impacts to the following protected species (status indicated) and their associated critical habitat, if appropriate, managed by NMFS:

- Gulf Sturgeon, *Acipenser oxyrinchus desotoi*, Threatened
- Smalltooth Sawfish, *Pristis pectinata*, Endangered
- Green Sea Turtle, *Chelonia mydas*, Endangered
- Loggerhead Sea Turtle, *Caretta caretta*, Threatened
- Hawksbill Sea Turtle, *Eretmochelys imbricata*, Endangered
- Leatherback Sea Turtle, *Dermochelys coriacea*, Endangered
- Kemp's Ridley Sea Turtle, *Lepidochelys kempii*, Endangered

Additional information on some of these species is provided below.

Piping plover (*Charadrius melodus*)

The sandy beaches and shorelines adjacent to the project area offer suitable foraging and resting habitat for the piping plover during the winter migratory season, and piping plover may forage in the shallow waters of the project area. Natural shorelines in the proposed project vicinity provide suitable winter migration resting habitat for the piping plover. Piping plover wintering habitat includes beaches, mudflats, and sandflats, as well as barrier island beaches and spoil islands (Haig 1992 as cited by USFWS 2013). On the Gulf Coast, preferred foraging areas are associated with wider beaches, mudflats, and small inlets (USFWS 2013).

Red knot (*Calidris canutus rufa*)

The red knot, a federal proposed species, uses the state of Florida both for wintering habitat and migration stopover habitat for those that continue to migrate down to specific wintering locations in South America (Niles et al. 2008). Wintering and migrating red knots forage along sandy beaches, tidal mudflats, saltmarshes, and peat banks (Harrington 2001). Observations indicate that red knots also forage on oyster reef and exposed bay bottoms, and roost on high sand flats, reefs, and other sites protected from high tides (Niles et al. 2008). In wintering and migration habitats, red knots commonly forage on bivalves, gastropods, and crustaceans. Threats to wintering and stopover habitat in Florida include shoreline development, hardening, dredging, deposition, and beach raking (Niles et al. 2008).

St. Andrews Beach Mouse (*Peromyscus polionotus peninsularis*)

The St. Andrews Beach mouse and its critical habitat occurs adjacent to the project site.

Beach mice occur only in dune habitats. All habitat types primary, secondary and scrub dunes are essential to beach mice at the individual level. Coastal dune habitat is generally categorized as: primary dunes with sea oats and other grasses commonly distributed, secondary dunes characterized by such plants as woody goldenrod, Florida rosemary, and interior or scrub dunes dominated by scrub oaks and yaupon holly. The majority of their foraging activity occurs within these primary and secondary dunes (Bird et al. 2013). PCE's of critical habitat include: 1) A contiguous mosaic of primary, secondary scrub vegetation, and dune structure, with a balanced level of competition and predation and few or no competitive or predaceous nonnative species present, that collectively provide foraging opportunities, cover, and burrow sites; 2) Primary and secondary dunes, generally dominated by sea oats that, despite occasional temporary impacts and reconfiguration from tropical storms and hurricanes, provide abundant food resources, burrow sites, and protection from predators; 3) Scrub dunes, generally dominated by scrub oaks, that provide food resources and burrow sites, and provide elevated refugia during and after intense flooding due to rainfall and/or hurricane induced storm surge; 4) Functional, unobstructed habitat connections that facilitate genetic exchange, dispersal, natural exploratory movements, and recolonization of locally extirpated areas; and 5) A natural light regime within the coastal dune ecosystem, compatible with the nocturnal activity of beach mice, necessary for normal behavior, growth and viability of all life stages.

Sea Turtles and Marine Mammals

There are five species of endangered or threatened sea turtles that may occur or have the potential to occur in the project area. These include green turtle, hawksbill turtle, Kemp's ridley turtle, leatherback

turtle, and loggerhead turtle. Sea turtles forage in the waters of the coastal Florida panhandle region and have the potential to occur in the waters where in-water work is proposed. Sea turtle nesting habitat, including proposed critical habitat for loggerheads, surrounds the project area.

Twenty-two marine mammals are native to the Gulf of Mexico: 21 pelagic species of whales and dolphins, and the West Indian manatee (see Chapter 3). Of these species, the endangered West Indian manatee has the potential to occur in the project area waters. Manatees typically seek out shallow seagrass areas as preferred feeding habitat. Additionally, bottlenose dolphin (*Tursiops truncatus*) populations are known to migrate into bays, estuaries, and river mouths and could be located in the proposed project area (NMFS 2013a). Bottlenose dolphins have been observed entering and leaving nearshore coastal waters (NMFS 2012).

Of the five listed endangered whale species (sperm whale, sei whale, fin whale, blue whale, humpback whale), only the sperm whale is considered to commonly occur in the Gulf of Mexico. The sperm whale is predominantly found in deep ocean waters, generally deeper than 3,280 feet, on the outer continental shelf. Due to the location of the project in a canal and the relatively shallow depth in the project area, the sperm whale, or any other endangered whale, is not likely to be present.

Smalltooth Sawfish (*Pristis pectinata*)

Smalltooth sawfish (*Pristis pectinata*) do not typically use northern Gulf of Mexico waters (NMFS 2013b).

Gulf Sturgeon (*Acipenser oxyrhynchus desotoi*)

Gulf sturgeon are restricted to the Gulf of Mexico and its drainages, occurring primarily from the Pearl River in Louisiana to the Suwannee River, in Florida (NMFS 2009). Adult fish reside in rivers for 8 to 9 months each year and in estuarine or Gulf of Mexico waters during the 3 to 4 cooler months of each year (NMFS 2009). Important marine habitats include seagrass beds with sand and mud substrates (Mason and Clugston 1993).

Gulf sturgeon critical habitat was jointly designated by the NMFS and USFWS on April 18, 2003 (50 C.F.R. 226.214). The proposed project site is located within the Florida Nearshore Gulf of Mexico Critical Habitat Unit 11, which contains winter feeding and migration habitat for Gulf sturgeon. Critical habitat was designated based on seven primary constituent elements (PCEs) essential for its conservation, as defined in the 2003 *Federal Register* and are listed below. PCE's 1, 5, 6, and 7 are present in the project area

The PCE's are:

1. Abundant food items, such as detritus, aquatic insects, worms, and/or mollusks, within riverine habitats for larval and juvenile life stages; and abundant prey items, such as amphipods, lancelets, polychaetes, gastropods, ghost shrimp, isopods, mollusks, and/or crustaceans, within estuarine and marine habitats and substrates for subadult and adult life stages;
2. Riverine spawning sites with substrates suitable for egg deposition and development, such as limestone outcrops and cut limestone banks, bedrock, large gravel or cobble beds, marl, soapstone, or hard clay;
3. Riverine aggregation areas, also referred to as resting, holding, and staging areas, used by adult, subadult, and/or juveniles, generally, but not always, located in holes below normal riverbed

depths; these are believed necessary for minimizing energy expenditure during freshwater residency and possibly for osmoregulatory functions;

4. A flow regime (i.e., the magnitude, frequency, duration, seasonality, and rate-of-change of freshwater discharge over time) necessary for normal behavior, growth, and survival of all life stages in the riverine environment, including migration, breeding site selection, courtship, egg fertilization, resting, and staging, and for maintaining spawning sites in suitable condition for egg attachment, egg sheltering, resting, and larval staging;
5. Water quality, including temperature, salinity, pH, hardness, turbidity, oxygen content, and other chemical characteristics necessary for normal behavior, growth, and viability of all life stages;
6. Sediment quality, including texture and chemical characteristics, necessary for normal behavior, growth, and viability of all life stages; and
7. Safe and unobstructed migratory pathways necessary for passage within and between riverine, estuarine, and marine habitats (e.g., an unobstructed river or a dammed river that still allows for passage).

Essential Fish Habitat

EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seeks to minimize adverse impacts on habitat caused by fishing and non-fishing activities. The NMFS has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column. The EFH within the project area include emergent wetlands, mud substrate, and estuarine water columns for species of fish, such as red drum, brown shrimp, pink shrimp, and white shrimp. There are no marine components of EFH in the vicinity of the project site.

Error! Reference source not found. provides a list of the species that NMFS manages under the federally Implemented Fishery Management Plan in the vicinity of the Mexico Beach Marina site and Gulf of Mexico.

Table 12-4. Federally managed fisheries with designated Essential Fish Habitat (EFH) in the proposed project area.

EFH_CATEGORY	SPECIES
Atlantic Highly Migratory Species	Atlantic Sharpnose Shark - Adult
	Atlantic Sharpnose Shark - Juvenile
	Atlantic Sharpnose Shark - Neonate
	Blacknose Shark - Adult
	Blacknose Shark - Juvenile
	Blacknose Shark - Neonate
	Blacktip Shark - Adult
	Blacktip Shark - Juvenile
	Blacktip Shark - Neonate

EFH_CATEGORY	SPECIES
	Bonnethead Shark - Adult
	Bonnethead Shark - Juvenile
	Bonnethead Shark - Neonate
	Bull Shark - Juvenile
	Finetooth Shark - Adult - and - Juv
	Finetooth Shark - Neonate
	Great Hammerhead Shark - All
	Lemon Shark - Juvenile
	Nurse Shark - Adult
	Nurse Shark - Juvenile
	Scalloped Hammerhead Shark - Adult
	Scalloped Hammerhead Shark - Juvenile
	Scalloped Hammerhead Shark - Neonate
	Spinner Shark - Adult
	Spinner Shark - Juvenile
	Spinner Shark - Neonate
	Tiger Shark - Juvenile
Coastal Migratory Pelagics of the Gulf of Mexico AND South Atlantic	Cobia
	King Mackerel
	Spanish Mackerel
Gulf of Mexico Shrimp	Brown Shrimp
	Pink Shrimp
	White Shrimp
Reef Fish Resources of the Gulf of Mexico	Almaco Jack
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper
	Blueline Tilefish
	Cubera Snapper
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper
	Red Snapper

EFH_CATEGORY	SPECIES
	Scamp
	Silk Snapper
	Snowy Grouper
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper

Migratory Birds and Bald Eagles

The proposed project was also reviewed for impacts to bald eagles and migratory birds in accordance with the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703–712), respectively. Table 12-5 provides a summary of the different migratory bird groups specifically addressed by this review and summarizes the potential impacts to these groups and associated habitats that could result from the implementation of this project.

Table 12-5. Potential project impacts to different migratory bird groups

SPECIES	BEHAVIOR	SPECIES/HABITAT IMPACTS
Shorebirds	Foraging, feeding, resting, nesting	Shorebirds nest, forage, feed, and rest, and in the types of habitats consistent with some of the shoreline areas near proposed action but not onsite. As such, they may be impacted locally and temporarily by the project.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Resting, roosting	Seabirds forage in water and rest/roost in terrestrial habitats including dunes. The project activity may startle foraging or resting birds. Roosting will not be impacted because activities will occur during the day. Nesting is not known to occur in or near the project area.

Considering the nature of the potential project and the potential impacts to migratory bird groups and associated habitats, a number of conservation measures were identified and will be followed to minimize potential impacts. These measures are summarized in Table 12-6.

Table 12-6. Conservation measures to minimize impacts to migratory bird groups

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Shorebirds	The Trustees expect foraging and resting birds would be able to move to another nearby location to continue foraging and resting. If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds and their recommendations will be implemented if shorebird nesting is occurring within 300 feet of the project site.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. All disturbances will be localized and temporary. The general behavior of these birds is to mediate their own exposure to human activity when given the opportunity, which they will have. Roosting should not be impacted because the project will occur during daylight hours only. Nesting should not be impacted because the project will not occur near nesting habitats.

Environmental Consequences

Section 7 Consultation

The USFWS reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA. On March 24, 2014, the review of potential impacts to species managed by USFWS was completed (McClain, 2014). The USFWS concurred with the Trustees' determination that the proposed project may affect, but is not likely to adversely affect, five species of sea turtles in terrestrial habitats (green, hawksbill, Kemp's ridley, leatherback, and loggerhead), West Indian manatee, piping plover, and red knot (if listed). The concurrence also agreed with the Trustees' determination that St. Andrews beach mouse would experience no effect. The USFWS also concurred with the Trustees' determination that the project will not adversely modify or destroy critical habitat for the St. Andrews beach mouse or destroy critical terrestrial habitat for the loggerhead sea turtles (if designated).

Consultation of potential impacts on protected species managed by NMFS from this project was initiated on February 11, 2014. The Trustees' review of the potential impacts of the project for protected species managed by NMFS determined the proposed action "may affect, but is not likely to adversely affect" the following species and associated critical habitats in the project implementation area:

- Gulf Sturgeon - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Smalltooth Sawfish – The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Green Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Loggerhead Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Hawksbill Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.

- Leatherback Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Kemp's Ridley Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.

Concurrence from NMFS with the Trustees' conclusions for these species is still pending.

The Trustees also evaluated the potential for take of Marine Mammals under the MMPA and due to these species' mobility and the implementation of NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006), *Standard Manatee Conditions for In-Water Work* (USFWS 2011), and USFWS recommended conservation measures for listed species and other trust resources, take of marine mammals under the MMPA is not anticipated.

Essential Fish Habitat

The Trustees' review of potential impacts to EFH from the project implementation concluded construction activities will likely have a temporary negative impact on habitat. The disturbance caused by the use of heavy equipment, sediment disturbance, potential increase of debris in the water, and increased noise associated with planned project work (e.g., placing new pilings) may affect any species using the habitat near the project area. However, during construction, adjacent areas with equivalent or better habitat will be available and undisturbed and organisms could move away from disturbed areas. As a result, the Trustees concluded the project is not likely to adversely affect EFH.

On March 17, 2014 NMFS completed its evaluation of potential EFH impacts and concluded that impacts to EFH will be brief and minor (Fay, 2014).

Migratory Birds and Bald Eagles

Bald eagles are not present at the project location so will not be affected. At the same time, implementation of the conservation measures previously identified in the review of potential impacts to migratory birds will prevent take of the identified migratory bird groups.

Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem with the project area, and possibly expand out into adjacent areas after the initial introduction. The invasive species threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 3 described more about the regulations addressing invasive species, pathways, impacts, and prevention. At this time specific invasive species that may be present on the project site or could be introduced through the project have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage,

monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.31.5.4 Human Uses and Socioeconomics

12.31.5.4.1 Socioeconomics and Environmental Justice

Affected Resources

Mexico Beach, similar to the rest of the Florida Panhandle, relies on the coastal waters of the Gulf of Mexico to provide a variety of economic and social benefits to its residents and visitors. The coastal ecosystems in the project area support a wide variety of commercial and recreational activities that contribute significantly to the State's economy. Sport and commercial fisheries are some of the most notable economic highlights, within the region and the State. The marine environments within the area also provide essential transportation links, support a variety of water-dependent facilities, and offer an array of recreational opportunities that attract thousands of visitors to the area each year (FDEP 1994).

The 2009 median household income in Mexico Beach was \$40,974. Accommodation and food services industries represent the largest employment sector in the city, employing 12.5 percent of residents. Public administration and construction represent the next largest employment sectors, and together the three employ approximately 42.2% of area residents (City-data.com 2013).

Environmental Consequences

No adverse socioeconomic impacts are expected as a result of the proposed project. The proposed project would benefit the local economy during construction through the provision of a small number of construction jobs and associated spending on goods and services by construction workers. Following completion of construction, the project would provide improved facilities to accommodate water-based recreational activities. The limited additional docking space created is not expected to have any long-term socioeconomic impacts.

12.31.5.4.2 Cultural Resources

Affected Resources

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Environmental Consequences

A complete review of this project under Section 106 of the NHPA is ongoing and would be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within the project area. This project would

be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

12.31.5.4.3 Infrastructure

Affected Resources

Infrastructure in the Florida panhandle consists of a network of interconnected structures, support facilities and transportation systems. Physical infrastructure and public services include commonly provided federal, state, county, municipal, and/or private facilities and utilities that support development and protect public health and safety.

The most significant component of the transportation network in the area is US Highway 98, which closely follows the Gulf coast from the Florida-Alabama state line to St. Marks, Florida. Highway 98 provides the main transportation arterial into and out of the City of Mexico Beach, with the remaining transportation infrastructure consisting primarily of local residential roads. A network of canals provides local access by boat from the Gulf of Mexico to properties located inland from the coast. The closest public airport to the project site is Northwest Florida Beaches International Airport, located approximately 45 miles west in Panama City.

Water, wastewater and sanitation services are provided by the City of Mexico Beach Public Works Department. Electric service is provided by a number of private power companies. Cable television and internet are provided by Mediacom, and phone service is provided by AT&T.

Environmental Consequences

During construction of the marina improvements, the proposed project would potentially have minor adverse impacts to infrastructure at the marina associated with construction, utility service interruptions and potential accidental damage to utility infrastructure; and potential restrictions on access and use of canal infrastructure. Following completion of construction, the proposed improvements could lead to an increase in visitor use; however, visitor use is not expected to increase to the point where associated wear on infrastructure would lead to adverse impacts. Overall, the proposed project is expected to have long-term beneficial impacts on infrastructure through the provision of expanded and enhanced marina facilities.

12.31.5.4.4 Land and Marine Management

Affected Resources

Development in the City of Mexico Beach is regulated by the City of Mexico Beach Comprehensive Plan and the City of Mexico Beach Land Development Code (City of Mexico Beach 2013). Zoning and land development decisions are subject to review and approval by the City of Mexico Beach Planning and Zoning Board. The marina is situated on land owned by the City of Mexico Beach and zoned for Commercial use (Bay County 2013). Marinas are a permitted use in Commercial districts (City of Mexico Beach 1991). Land uses surrounding the site include single-family residential, commercial and hotel uses.

Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The

Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS (Federal Trustees 2013). The State of Florida responded and concurred with the federal determination of consistency at this point in the early restoration planning process (Milligan 2014).

Environmental Consequences

No changes would occur to the current use at the Mexico Beach Marina, or to uses on adjacent and nearby properties. Land ownership would remain the same, and the site would continue to be managed as a public marina. The proposed project would be consistent with the City of Mexico Beach Land Development Code as enforced by the City of Mexico Beach Planning and Zoning Board, since it is a permitted use in Commercial districts.

12.31.5.4.5 Aesthetics and Visual Resources

Affected Resources

Mexico Beach is situated on the Gulf of Mexico, along a 5-mile stretch of beach at the mouth of St. Joseph Bay. The landscape in the area is characterized by beaches, tidal flats, dunes, marshes and coastal waterways, with unobstructed views of the Gulf of Mexico near the coastline. Development is characteristic of small beach communities in the region, and consists of low-rise commercial, hotel and single-family residential buildings. The project is within an existing marina within an existing canal typical of many Florida beach communities.

Environmental Consequences

Temporary impacts to aesthetics and visual resources would result from implementation of the proposed marina improvements. Construction equipment would be temporarily visible to visitors and recreational users. These construction-related impacts to visual resources would be short term and minor, since the amount of construction equipment required to complete the project would be limited, and construction activities and equipment would be visible to residents and visitors for a maximum of two years. The proposed project would take place at the site of an existing marina. The project would improve the overall visual appearance of the site and surrounding area; therefore, no long-term impacts to aesthetics and visual resources are anticipated.

12.31.5.4.6 Tourism and Recreational Use

Florida's beaches are a major attraction for the state's economy providing benefits to a variety of user groups. Mexico beach like other Florida coastal communities attract tourist to the unique and diverse wildlife and scenic habitats, abundant fishing opportunities and the sun and surf. The hotels, restaurants, and other retail establishments within the vicinity are heavily dependent upon the revenues generated each year by the millions of residents and tourists that utilize the beach. The Florida Beaches Habitat Conservation Plan noted that Florida's tourism industry represents a \$57 billion industry and 20% of the state's economy. It generates \$3.4 billion a year alone in sales tax revenue.

The City of Mexico Beach is a rapidly growing tourist destination which currently receives upwards of 10,000 visitors a year. Locals and tourists spend much time swimming, beachcombing, boating, fishing, diving, kayaking, surfing, and engaging in other active and passive activities near the beach. Beach usage peaks during the winter and spring, and subsides during the summer.

Environmental Consequences

During the construction period, tourism and recreational use would be negatively impacted by noise and visual disturbances associated with the use of construction equipment. Public access to the marina would potentially be prohibited or restricted during construction activities. While these temporary inconveniences would result in minor negative impacts on tourism and recreational use, over the long term the project would result in beneficial impacts to tourism and recreational use. Opportunities for ocean-based recreational activity would be enhanced as a result of improved facilities. The project would not be expected to result in a notable increase in the number of visitors, due to its limited scope; however, the project would contribute to an improved experience for visitors and local residents using the marina. Overall, adverse impacts to tourism and recreational use would be short term and minor. Over the long term, the project would result in beneficial impacts to tourism and recreational uses.

12.31.5.4.7 Public Health and Safety and Shoreline Protection

Affected Resources

The management of hazardous materials is regulated under various federal and state environmental and transportation laws and regulations, including the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Emergency Planning and Community Right-to-Know Act, and the Hazardous Materials Transportation Act. The purpose of the regulatory requirements set forth under these laws is to ensure the protection of human health and the environment through proper management (identification, use, storage, treatment, transport, and disposal) of these materials. Some of these laws provide for the investigation and cleanup of sites that have already been contaminated by releases of hazardous materials, wastes, or substances.

The project area lies within an existing marina with adjacent residential areas, located along a canal approximately 1000 feet removed from the shoreline. A review of the USEPA EnviroMapper revealed that there are no sources of contamination or hazardous materials located on or immediately adjacent to the Mexico Beach Marina (USEPA 2013c). No sources of hazardous, toxic and radioactive waste (HTRW) are otherwise known to exist within the project area. Boats moored at the marina could potentially serve as a source of non-point pollution resulting from inadvertent releases of fuel or oil.

Environmental Consequences

Project construction would utilize mechanical equipment and barges that use oil, lubricants and fuels. The contractor would be required to take appropriate actions to prevent, minimize, and control the spill of construction related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills. If a release should occur such releases would be contained and cleaned up promptly in accordance with all applicable regulations. As a result, no impacts associated with construction-related hazardous materials would be anticipated.

Because of the nature and location of the project, no impacts to public health and safety or shoreline erosion are anticipated as a result of construction activities. The project and its construction are not anticipated to generate hazardous waste or the need for disposal of hazardous waste. In the event of a fuel or oil spill from construction equipment, all procedures, regulations and laws pertaining to Oil Spill Prevention and Response would be adhered to and the incident would be reported to appropriate agencies. All occupational and marine safety regulations and laws would be followed to ensure safety of

all workers and monitors. Therefore, it is anticipated that there would be no impacts to public health and safety from the proposed project.

12.31.6 Summary and Next Steps

The proposed Strategic Boat Access: City of Mexico Beach Marina project would improve the existing Mexico Beach Canal Park boat ramp in the City of Mexico Beach. The proposed improvements include replacing the boardwalk dock with a concrete surface and increasing the width, removing and replacing eighteen existing finger piers, and replacement of the existing retaining wall. The project is consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project would enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

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12.32 Strategically Provided Boat Access along Florida’s Gulf Coast: Project Description B (Panama City St. Andrews Marina Docking Facility Expansions)

12.32.1 Project Summary

The proposed Strategically Provided Boat Access along Florida’s Gulf Coast (Panama City St. Andrews Marina Docking Facility Expansions) project would improve the existing St. Andrews Marina docking facility in Panama City. The proposed improvements include adding three boat slips, replacing the boat ramp, and replacing a fixed wooden dock with a concrete floating dock. The total estimated cost of the project is \$250,029.

12.32.2 Background and Project Description

The Trustees propose to improve and enhance facilities at the existing St. Andrews Marina in Panama City (see Figure 12-3 for general project location). This project builds on an ongoing effort initiated by the FWC through its Florida Boating Improvement Program which, in part, is used to fund applications from local governments in a competitive grant process for boat access improvement projects in remote areas, small towns and cities, and coastal counties (for more information on the program see <http://myfwc.com/boating/grant-programs/fbip/>).

The objective of the Panama City St. Andrews Marina Docking Facility Expansions project is to enhance and/or increase recreational boating and fishing opportunities by improving the marina. The restoration work proposed includes constructing three boat slips, replacing the boat ramp, and replacing a fixed wooden dock with a concrete floating dock.

12.32.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public’s access to and enjoyment of their natural resources along Florida’s Panhandle was denied or severely restricted. The proposed Strategically Provided Boat Access along Florida’s Gulf Coast (Panama City St. Andrews Marina Docking Facility Expansions) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the marina. This project would enhance and/or increase opportunities for the public’s use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Agencies have successfully completed projects of similar scope throughout Florida over many years, including similar types of actions in earlier phases of the Deepwater Horizon Early Restoration. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.32, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.32 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

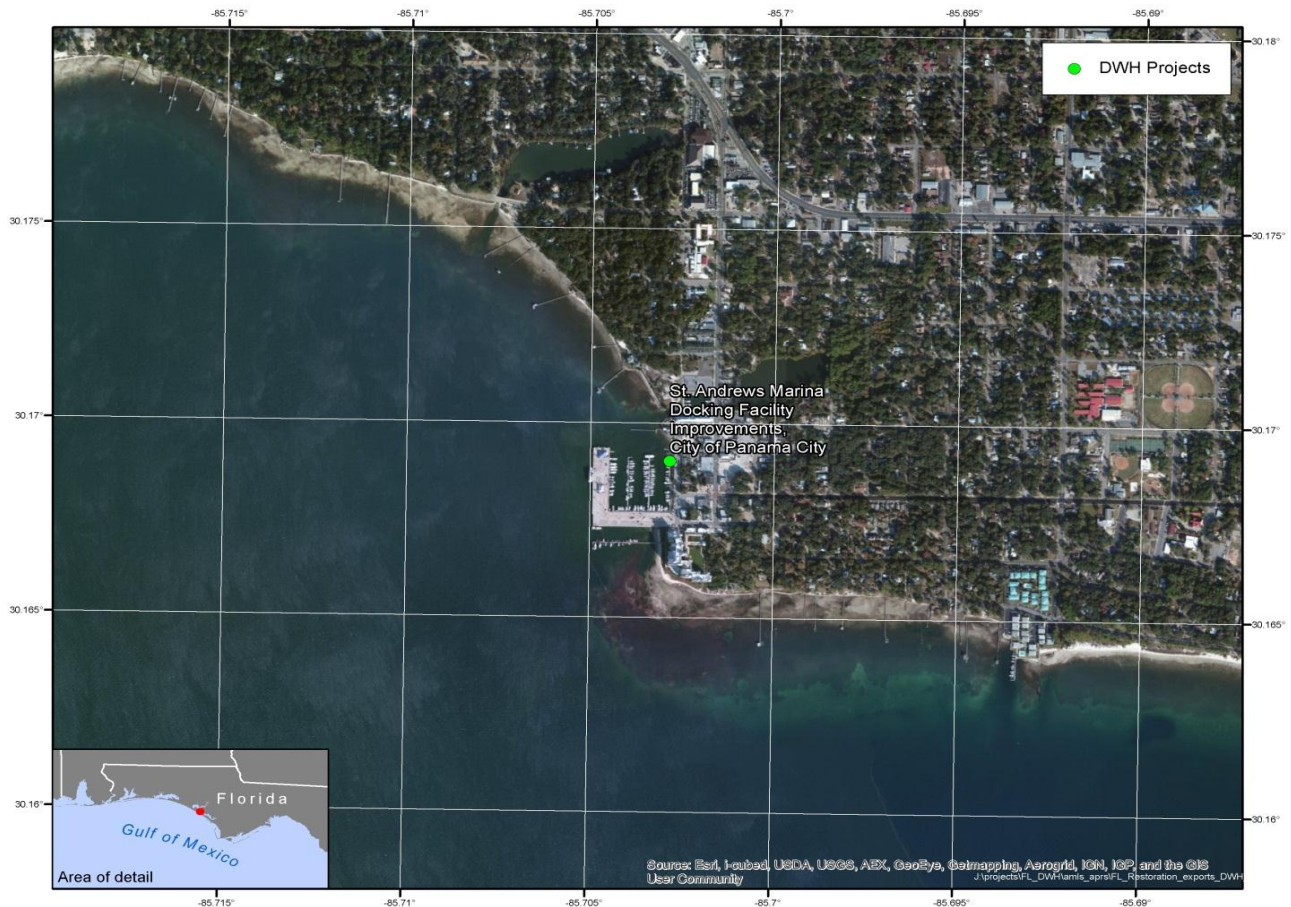


Figure 12-3. Location of FWC Strategic Boat Access City of Panama City St. Andrews Marina docking facility expansions project.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (<http://www.gulfspillrestoration.noaa.gov>) and to the State of Florida (<http://www.deepwaterhorizonflorida.com>). In addition to meeting the criteria for the Framework Agreement and OPA, the Panama City St. Andrews Marina Docking Facility Expansions project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-

county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.32.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving an existing marina facility. Performance monitoring will evaluate: 1) the construction of the three new boat slips; 2) the replacement of the existing boat ramp; and 3) the replacement of the existing fixed wooden dock with a concrete floating dock. Specific performance criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the marina is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Panama City as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Panama City.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Panama City will monitor the recreational use activity at the site. Panama City staff will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

In addition, the State of Florida Trustees and the Department of the Interior recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient, concurrent with the twice annual performance monitoring, and performed by the same party, a survey will be taken of a sample of recreational users at the project location.

12.32.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Strategically Provided Boating Access along Florida's Gulf Coast project, of which this is a component, are \$6,496,680 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.⁷

⁷ For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

12.32.6 Costs

The total estimated cost to implement this project is \$250,029. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

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- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
 - The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.33 Strategically Provided Boat Access along Florida's Gulf Coast: Environmental Review B (Panama City St. Andrews Marina Docking Facility Expansions)

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (Panama City St. Andrews Marina Docking Facility Expansions) project would improve the existing St. Andrews Marina docking facility in Panama City. The proposed improvements include adding three boat slips, replacing the boat ramp, and replacing a fixed wooden dock with a concrete floating dock. See Figure 12-4 for the general project location.

12.33.1 Introduction and Background

In April 2011, the Natural Resource Trustees (Trustees) and BP Exploration and Production, Inc. (BP) entered into the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement). Under the Framework Agreement, BP agreed to make \$1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is underway. The Framework Agreement is intended to expedite the start of restoration in the Gulf in advance of the completion of the injury assessment process. Early restoration is not intended to, and does not fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement), the Trustees released, after public review of a draft, a Phase I Early Restoration Plan (ERP) in April 2012. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, the National Oceanic and Atmospheric Administration (NOAA) issued a public notice in the Federal Register on behalf of the Trustees announcing the development of additional future Early Restoration projects for a Draft Phase III Early Restoration Plan (ERP). This boat ramp project was submitted as an Early Restoration project on the NOAA website (<http://www.gulfspillrestoration.noaa.gov>) and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and the Oil Pollution Act (OPA), the project meets Florida's criteria that Early Restoration projects occur in the eight-county Florida panhandle area that deployed boom and was impacted by the Spill.

St. Andrews Marina was established in 1959 by the City of Panama City and is used by both commercial and recreational boaters. St. Andrews Marina is easily accessible to the Gulf of Mexico and the Intracoastal Waterway. The marina is situated in a developed area of Panama City characterized by residential and commercial infrastructure. The site itself is a developed marina with existing boat slips, parking areas, boarding docks, boat slips, and temporary mooring locations. It currently has approximately 100 slips. The proposed project would be focused on a small area; the over-water structures where work would take place cover a total area of approximately 630 square feet.

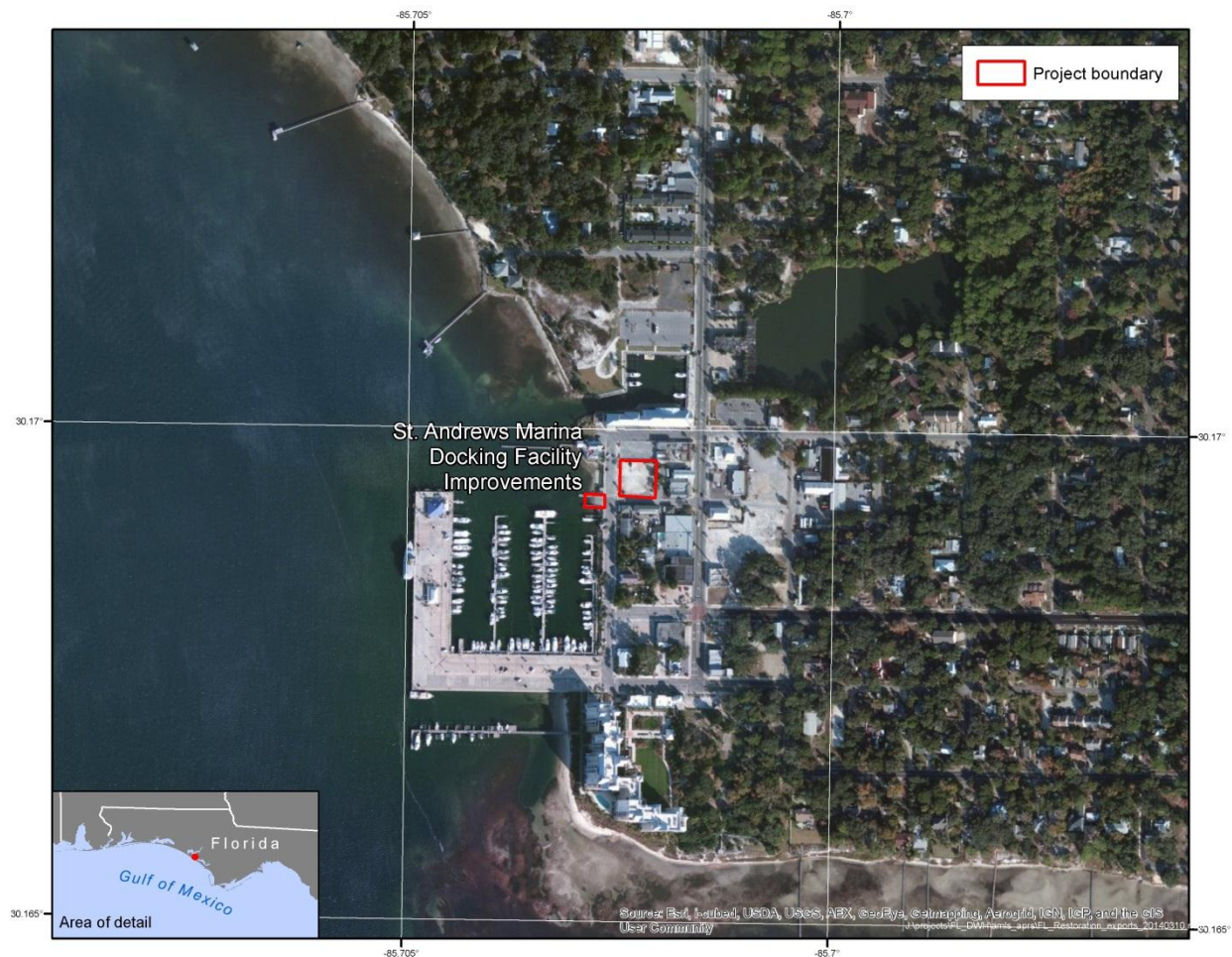


Figure 12-4. Vicinity and project location.

The City of Panama City, Florida proposes to make several improvements at the existing St. Andrews Marina. Included in these changes are the addition of three (3) boat slips, replacement of a boat ramp, and the replacement of a fixed wooden dock with a concrete floating dock. This property is located at 3151 West 10th Street, Panama City, Florida, near the southernmost boundary of the City limits and is owned by the City of Panama City.

The project would provide boaters with enhanced access to St. Andrews Bay and the Gulf of Mexico. This project would help address the reduced quality and quantity of recreational activities (e.g., boating and fishing) in Florida attributable to the Deepwater Horizon Oil Spill.

The total estimated cost to implement this project is \$250,029. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

12.33.2 Project Location

The project is located at 3151 West 10th Street, Panama City, Bay County, Florida, in Section 1, Township 4-S, Range 15-W, at latitude 30° 16' 76.88" north and longitude: -85° 70' 34.87" west. The project site is located at the southern terminus of Bayview Avenue, in the western portion of the city.

Construction activities are to occur along the shoreline and in nearshore waters of St. Andrews Bay, which is a 69,000 acre estuary with direct access to the Gulf of Mexico.

12.33.3 Construction and Installation

The City of Panama City, Florida proposes to make several improvements at the existing St. Andrews Marina. Included in these changes are the addition of three (3) boat slips, replacement of an existing boat ramp, and the replacement of a fixed wooden dock with a concrete floating dock.

Standard construction methods and BMPs will be used to produce the planned improvements. For example, the construction of a boat ramp can be summarized in terms of executing a number of specific tasks and subtasks including:

Task 1. Site Preparation

- a. Prior to beginning any waterward work at the boat ramp site the project area needs to be surveyed and marked. Turbidity curtains are then installed to encapsulate the work area and other erosion control methods are put in place on the landward side of the project (e.g., placement of hay bales) to prevent erosion into the water from equipment movement and any work being performed on the upland areas.

Task 2. Ramp Construction

- a. The area for the ramp is surveyed in and marked by stake or pole (typically small diameter 2" or less PVC).
- b. A coffer or bladder dam is installed and the water within the dam, between the waterward extent of the ramp and the land, is pumped out to upland storage ponds or run through a filter system to remove any sediment in the water before returning it to the receiving waterbody. The work area is kept dry by use of dewater pumps (ground water to be pumped is first sampled and tested for water quality) and disposed of in the same manner as the pumped surface water. This dewatering operation is run continuously throughout the construction of the ramps. Once the ramps are completed the dewatering pumps are shut down and the dams are removed.
- c. Construction of the ramps begins once the area is sufficiently dry to remove unsuitable soils, if necessary, and replaced with suitable soil. This soil is then compacted to specification. Then the base material for the ramp is placed, usually a rock material. After placement and compaction of the base the ramp is formed, reinforcing steel placed and then the concrete poured and finished. Once curing of the concrete is complete the forms are removed and the coffer or bladder dams are removed.

Task 3. Monitoring

- a. Every day, before the start of construction activities, the turbidity screen is checked and repaired if necessary.
- b. The foreman or other designated individual checks the area inside the screen and the screen itself to see if any protected species (manatees, dolphins, small tooth sawfish etc) have gotten

trapped within the work area or in the screen. If so then appropriate (FWC) personnel are notified to request removal. No work is begun until the animal, fish or bird is removed.

- c. During the work day the work area and area adjacent to the work area is monitored to make sure protected species have not ventured into the area. If so then work is stopped until the animal moves out of the area.
- d. At the end of the day the area is checked for debris, sediment and possible spillage and these are properly removed and disposed of before shutting down the site.
- e. If a storm is anticipated that might damage the turbidity screen it is removed and stored until the storm event has passed and seas have subsided.

It is expected that this process will be used to replace the boat ramp as part of this project.

As part of this engineering and site assessment, a survey of submerged aquatic vegetation (SAV) in the area would be completed. Should SAV be identified in the project area, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) would be implemented. Among other elements this would require pilings for the dock expansion be placed at a minimum of 10 feet apart. BMPs, to limit the noise from any pile driving (e.g., consideration of bubble curtains) will be evaluated with the selection of the final construction methods and implemented, as appropriate.

The existing conceptual plans for the work identify that approximately 15 new pilings would need to be placed as part of the work to install the floating dock and develop the three new slips. The 15 new pilings could be up to 10" by 10" and made of concrete based on conceptual plans from the City of Panama City. These pilings would be placed with some combination of water jetting and mechanical auguring by a small barge.

During all in-water construction activity, the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006) would be implemented and adhered to. Significant aspects of these provisions include stopping operation of any equipment if sea turtles or smalltooth sawfish come within 50 feet of the equipment until the time when animals leave the project area of their own volition.

All applicable best management practices (BMPs) and permit conditions would be followed to minimize any adverse impacts of construction. BMPs for erosion control would be implemented and maintained at all times during construction to prevent discharges into surface waters. Methods for land-based portions of the project construction could include, but may not be limited, to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site. Prior to the initiation of any work, erosion control measures would be put in place along the perimeter of construction zone. Turbidity barriers with weighted skirts extending to within one foot of the bottom would be installed along the entire shoreline length of the in-water project area prior to initiation of construction. Turbidity barriers would remain in place and be maintained until the authorized work has been completed and all erodible materials have been stabilized. Erosion control measures would remain in place and be maintained until all authorized

work is completed and the site has been stabilized. During and following construction, all construction waste materials would be disposed of appropriately.

Project work is expected to be less than two years in duration.

12.33.4 Operations and Maintenance

Long-term monitoring and maintenance of the improved facilities would be completed by Panama City as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and would be accomplished by Panama City.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager would go to the site twice to record the number of users. Following the one year construction performance monitoring period, Panama City would monitor the recreational use activity at the site. Panama City staff would visit the site twice a year to count the number of users at the boat ramp. The visitation numbers would then be provided to the Florida Department of Environmental Protection.

In addition, the State of Florida Trustees and the Department of the Interior recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient, concurrent with the twice annual performance monitoring, and performed by the same party, a survey will be taken of a sample of recreational users at the project location.

12.33.5 Affected Environment and Environmental Consequences

Under the National Environmental Policy Act, federal agencies must consider environmental impacts of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.33.5.1 No Action

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.33.5.2 *Physical Environment*

12.33.5.2.1 *Geology and Substrates*

Affected Resources

The project lies in the Gulf coastal lowlands physiographic province (Allen and Main 2005). The landscape of the Gulf coastal lowlands is comprised of a relatively flat terrain, ranging in elevation from 0 to about 50 feet above mean sea level. Soils in the coastal panhandle of Florida consist predominately of medium to fine grain sands and silts associated with recent Pleistocene formations. A study at Tyndall Air Force Base indicates that sediments in the St. Andrews Bay range from fine sands to silt (NOAA 1997).

The soils within the project area and vicinity have been identified and mapped by the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS 2013). The NRCS data identified Map unit 43 - Urban land as the soil unit mapped within the project and vicinity.

Urban land consists of areas that are 75 percent or more covered with streets, houses, commercial buildings, parking lots, shopping centers, industrial parks, airports, and related facilities. This includes soil tracts too small to be mapped separately.

Environmental Consequences

There are no anticipated adverse impacts to local geology, soils, and sediments associated with the project. Appropriate erosion control and mitigation measures would be implemented prior to construction. The majority of the work is over water and therefore, impacts to geology and substrates would be minor.

12.33.5.2.2 *Hydrology and Water Quality*

Affected Resources

The proposed project is located on St. Andrews Bay. St. Andrews Bay is within the St. Andrews Bay Watershed (NFWMD 2000). The St. Andrews Bay watershed is the only major estuarine drainage basin entirely within the Florida Panhandle. There are nine major streams that flow into St. Andrews Bay. The bay is designated as a SWIM Priority Waterbody by the Northwest Florida Water Management District.

Environmental Consequences

All permit conditions requiring mitigation measures for siltation, erosion, turbidity and release of chemicals would be strictly adhered to. During construction, Best Management Practices and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts. The FDEP permit conditions require erosion and turbidity mitigation measures. These include:

- Install floating turbidity barriers
- Install erosion control measures along the perimeter of all work areas
- Stabilize all filled areas with sod, mats, barriers or a combination
- If turbidity thresholds are exceeded the project must stop, stabilize the soils, modify the work procedures, and notify the FDEP.

The FDEP permits also constitute a Certification of Compliance with State Water Quality Standards under Section 401 of the Clean Water Act, which means that the project would comply with state water quality standards and other aquatic resource protection requirements. After construction, increased boat traffic on the canal could result in minimal impacts to surface water quality.

Impacts from chemicals that could potentially be released from sources such as construction equipment and boats are expected to be negligible. Required spill containment measures would be implemented for applicable construction activities. FDEP permits require spill containment protection and mitigation measures such as:

- No boat repair or fueling facilities over the water,
- Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting.

Best Management Practices along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts associated with construction activities. Best Management Practices for erosion control would be implemented and maintained at all times during construction to prevent siltation and turbid discharges into waters of the state. Silt and sedimentation control measures would be installed and properly maintained to protect water quality resources. Given that there would be no substantial change in uses at the project site following implementation of the proposed enhancement activities, it is anticipated that there would be no long-term negative impacts to water resources. The implementation of the proposed project would therefore result in short-term minor negative and long-term beneficial impacts on water resources. This project would not impact groundwater. There would be no adverse impacts to hydrology or water quality.

The proposed discharge of dredged or fill material into waters of the United States, including wetlands, or work affecting navigable waters associated with this project is currently being coordinated with the U.S. Army Corps of Engineers (USACE) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA). Coordination with the USACE and final authorization pursuant to CWA/RHA will be completed prior to project implementation.

Overall, potential impacts to water resources are expected to be minor, temporary and localized in nature.

12.33.5.2.3 Air Quality and Greenhouse Gas Emissions

Affected Resources

The Clean Air Act (CAA) requires the State of Florida to adopt ambient air quality standards to protect the public from potentially harmful amounts of pollutants. Six common air pollutants (also known as "criteria pollutants") are regulated by USEPA and the states under the CAA. They are particle pollution (often referred to as particulate matter), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. The FDEP has designated areas meeting the state's ambient air quality standards by their monitoring and modeling program efforts, (i.e., attainment areas). Florida has no nonattainment areas within the panhandle region.

Currently, Bay County is classified by USEPA as an attainment area in accordance with the National Ambient Air Quality Standards (NAAQS). The City of Panama City is not within an USEPA Class 1 air quality area; however, St. Marks National Wildlife Refuge, located approximately 80 miles to the east, is designated as a Class I air quality area (USEPA 2013a). Class I air quality areas are afforded special protection under the Clean Air Act. Any proposed new or modified sources of air pollution locating within approximately 200 miles (300 km) of a Class I air quality area are asked to consult with the Federal Land Manager to determine whether emission impact modeling to the Class I area should be conducted and submitted to the Federal Land Manager for review (USFWS 2013).

Beginning in 2011, the CAA also regulates emissions of greenhouse gases (GHG) (USEPA 2013b). The USEPA's GHG Reporting Rule establishes mandatory GHG reporting requirements for sources that emit 25,000 metric tons or more of carbon dioxide equivalent (CO₂e) per year (USEPA 2013b).

Environmental Consequences

Project implementation would require the use of barge-mounted and land-based heavy equipment for up to 8 hours per day over a 2-year construction period. This would temporarily affect air quality and elevate greenhouse gas levels in the project vicinity due to emissions and increased dust from operation of construction vehicles and equipment. Any air quality impacts that would occur would be localized, limited to the construction phase of the project, and limited by the size of the project. Therefore, impacts to air quality would be negative but minor and short-term. The project would have no long term impacts on air quality.

Engine exhaust from bulldozers, trucks, backhoes, and other equipment would contribute to an increase in greenhouse gas emissions. Table 12-7 describes the likely greenhouse gas emission scenario for the implementation of this project.

Table 12-7. Greenhouse gas Impacts of the proposed project.

CONSTRUCTION EQUIPMENT	NO. OF HOURS OPERATED ⁸	CO ₂ (METRIC TONS) ⁹	CH ₄ (CO ₂ E) (METRIC TONS) ¹⁰	NO _x (CO ₂ E) (METRIC TONS)	TOTAL CO ₂ E (METRIC TONS)
Pile Driver	1920	81.6	0.048	0.48	82.13
Bulldozer	1920	81.6	0.048	0.48	82.13
Backhoe (2)	3840	168	0.096	0.96	169.1
Dumptruck ¹¹	1920	81.6	0.048	0.48	82.13
Cement Truck	1920	81.6	0.048	0.48	82.13
TOTAL					497.62

⁸ Emissions assumptions for all equipment based on 240 8-hour days of operation per piece of equipment over a 12-month construction period.

⁹ CO₂ emissions assumptions for diesel and gasoline engines based on USEPA 2009.

¹⁰ CH₄ and NO_x emissions assumptions and CO₂e calculations based on USEPA 2011.

¹¹ Construction equipment emission factors based on USEPA NONROAD emission factors for 250hp pieces of equipment. Data was accessed through the California Environmental Quality Act Roadway Construction Emissions Model.

Based on the assumptions described in Table 12-7 above, GHG emissions would not exceed 25,000 metric tons per year. Given the projected construction-phase GHG emissions, along with the small scale and short duration of the project, predicted impacts from greenhouse gas emissions would be short-term and minor.

12.33.5.2.4 Noise

Affected Resources

Noise can be defined as unwanted sounds and sound levels, and its impacts are interpreted in relationship to impacts on nearby visitors to the NWR and wildlife. The Noise Control Act of 1972 (42 U.S.C. 4901 to 4918) was enacted to establish noise control standards and to regulate noise emissions from commercial products such as transportation and construction equipment. The standard measurement unit of noise is the decibel (dB), which represents the acoustical energy present. Noise levels are measured in A-weighted decibels (dBA), a logarithmic scale which approaches the sensitivity of the human ear across the frequency spectrum. A 3-dB increase is equivalent to doubling the sound pressure level, but is barely perceptible to the human ear. Table 12-8 shows typical noise levels for common sources expressed in dBA. Noise exposure depends on how much time an individual spends in different locations.

Table 12-8. Common noise levels.

NOISE SOURCE OR EFFECT	SOUND LEVEL (DBA)
Rock-and-roll band	110
Truck at 50 feet	80
Gas lawnmower at 100 feet	70
Normal conversation indoors	60
Moderate rainfall on foliage	50
Refrigerator	40
Bedroom at night	25

Source: Adapted from BPA 1986, 1996

Noise levels in the project area vary depending on the season, time of day, number and types of noise sources, and distance from noise sources. Existing sources of noise in the project area include motor vehicle traffic on Highway 98, recreational boating, commercial vessels, overhead aircraft and ambient natural sounds such as wind, waves, and wildlife.

Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise sources or levels due to the project. Noise-sensitive receptors in the project area include residential communities, resort properties, beach recreational use and wildlife.

Environmental Consequences

Instances of increased noise are expected during the construction phase associated with the restoration project. The proposed project would generate construction noise associated with equipment during replacement of the boat ramp, and installation of a concrete floating dock to replace an existing fixed

wooden dock. Construction equipment noise is known to disturb fish, marine mammals and nesting shorebirds (discussed below). Construction noise would also create a potential nuisance to visitors and residents in areas adjacent to project construction activities. Construction noise would be temporary and limited to daytime hours, and the construction period is not anticipated to last more than one year. Because construction noise would be temporary, negative impacts to the human environment during construction activities would be short-term and minor, as they would likely attract attention but would not result in visitors changing their activities.

After completion of the project, noise sources would be expected to include the existing sources described above, and noise levels would return to pre-project conditions. There exists potential for increased boat and automobile traffic resulting from improvements to the marina, which would result in a slight increase in noise levels in the vicinity. Overall, long-term noise impacts from boating and other recreational activities would remain minor. Likewise, noise impacts from commercial vessels, highway traffic, and ambient natural sounds would be minor.

12.33.5.3 *Biological Environment*

12.33.5.3.1 *Living Coastal and Marine Resources*

Protected Species

Protected species and their habitats include ESA-listed species and designated critical habitats, which are regulated by either the USFWS or the NMFS. Protected species also include marine mammals protected under the Marine Mammal Protection Act, essential fish habitat (EFH) protected under the Magnuson-Stevens Fishery Conservation and Management Act, migratory birds protected under the Migratory Bird Treaty Act (MBTA) and bald eagles protected under the Bald and Golden Eagle Protection Act (BGEPA).

Affected Resources

The site has been a developed marine since 1959 with urban commercial development in the general vicinity. The area surrounding the Marina is highly developed with the majority of non-hardscape habitat being landscaped grass and vegetation. The non-water portions of the marina are also mostly hardscape (buildings and parking lots). Terrestrial vegetation and wildlife habitat at the project site is of limited quality and quantity as a result of past development and shoreline armoring, there is very little vegetation or wildlife habitat present on the upland portions of the site. The extent of riparian habitat within the project site is very limited and the bank is armored with riprap. The habitat surrounding the marina is open water and shoreline habitat of St. Andrews Bay. The shoreline is developed with residential and commercial infrastructure. Impervious surfaces include existing roadways, compacted soil, buildings, paved and graveled surfaces and boat ramp. There is no seagrass, mangroves, or corals present within the project area. In addition, no critical habitat exists within the marina.

The project site is situated on St. Andrews Bay and the water portions of the marina consist of open, shallow estuarine/marine habitats. While nearly 20,000 acres of seagrasses extend through St. Andrews Bay and St. Josephs Bay to the southeast, the most extensive and diverse seagrass habitat in the Florida Panhandle (NFWMD n.d.), no seagrasses exist within the footprint of the proposed project site.

Estuaries are extremely diverse and complex systems and provide spawning, nursery, and forage grounds for many species of fish and invertebrates. Within St. Andrews Bay Fish species within St. Andrews Bay resident fish species include species such as bay anchovy, code goby, sheepshead minnow, silversides, and silver perch (NOAA, 1997). Other transient species include Atlantic croaker, blue runner, bluefish, Gulf flounder, Gulf Menhaden, pinfish, red drum, Spanish mackerel, spotted seatrout, striped mullet (FDNR 1991; NOAA 1997). Some of the invertebrates found within the bay include bay scallop, bay squid, blue crab, brown shrimp, eastern oyster, grass shrimp, and pink shrimp, as well as various species of marine worms and amphipods etc. (FDNR 1991; NOAA 1997). Within the bay “hard” habitats such as piers, docks, seawalls, and rock jetties also contain tropical species such as cocoa damselfish, angelfishes, parrotfishes, spadefishes, and butterfly fishes. Wrasses, groupers, and snappers are also found along these hard substrates (FDNR 1991).

In and around St. Andrews Bay a large number of bird species occur. Many are migratory and are protected by the Migratory Bird Treaty Act (MBTA). Species that may occur in the vicinity of the marina include species of herons, egrets, gulls, and terns. The marina does not provide habitat for piping plover or red knot.

The Trustees have reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA for species managed by USFWS. For this, the Trustees first reviewed the species list for Bay County, Florida¹². Table 12-9 presents a summary of these potentially affected species/critical habitats and the nature of the potential impact that could result from project implementation.

Table 12-9. Potential Impacts to Species/Critical Habitats managed by DOI

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Green turtle, Hawksbill turtle, Kemp’s ridley turtle; Leatherback turtle, Loggerhead turtle	<p>No nesting habitat is present in any of the project areas; therefore no impacts from construction are anticipated. Sea turtles may nest in areas that boaters may access from these locations; therefore, visitors could disrupt nesting or hatching. The Trustees expect the conservation measures, including educational tools, will minimize impacts to sea turtles and their terrestrial habitats to an insignificant and discountable level.</p> <p>The main risk to sea turtles during execution of this project would come from boat collisions during in-water construction activity which could result in harm or mortality. Consultation has been initiated with NMFS to address this risk as the agency that has jurisdiction to review impacts to sea turtles in the estuarine and marine environments.</p>
West Indian manatee	<p>Bay county is not part of the 36 Florida counties that are identified as being counties where manatees regularly occur in coastal and inland waters (U.S. Department of the Interior, 2011). However, manatees could be present in the action areas.</p> <p>The main risk to manatees during execution of this project would come from noise during construction and boat collisions during use of ramps which could result in harm or mortality. The Trustees expect conservation measures and educational tools discussed below to minimize impacts to manatees (including those from noise) to an insignificant and discountable level.</p>

¹² The U.S. Fish and Wildlife, Panama City office website (<http://www.fws.gov/panamacity/specieslist.html>) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
	Project construction will not adversely modify or destroy critical habitat for the Choctawhatchee beach mouse because the construction work will not be taking place in any of the habitats listed above. Conservation measures are expected to minimize impacts to PCEs such that no adverse modification or destruction of critical habitat occurs from visitor use.
Gulf sturgeon	NMFS was consulted on Gulf sturgeon and its Critical Habitat in the estuarine environment. As a result, Gulf Sturgeon was not considered in the consultation with the USFWS.

In addition to the protected species managed by USFWS, the Trustees reviewed the proposed projects and associated actions for potential impacts to the following protected species (status indicated) and their associated critical habitat, if appropriate, managed by NMFS:

- Gulf Sturgeon, *Acipenser oxyrinchus desotoi*, Threatened
- Smalltooth Sawfish, *Pristis pectinata*, Endangered
- Green Sea Turtle, *Chelonia mydas*, Endangered
- Loggerhead Sea Turtle, *Caretta caretta*, Threatened
- Hawksbill Sea Turtle, *Eretmochelys imbricata*, Endangered
- Leatherback Sea Turtle, *Dermochelys coriacea*, Endangered
- Kemp's Ridley Sea Turtle, *Lepidochelys kempii*, Endangered

Additional information on some of these species is provided below.

Sea Turtles and Marine Mammals

There are five species of endangered or threatened sea turtles that may occur or have the potential to occur in the project area. These include green turtle, hawksbill turtle, Kemp's ridley turtle, leatherback turtle, and loggerhead turtle. Sea turtles forage in the waters of the coastal Florida panhandle region and have the potential to occur in the waters where in-water work is proposed. The project site does not contain suitable sea turtle nesting habitat.

Twenty-two marine mammals are native to the Gulf of Mexico: 21 pelagic species of whales and dolphins, and the West Indian manatee (see Chapter 3). Of these species, the endangered West Indian manatee has the potential to occur in the project area waters. Manatee typically seek out shallow seagrass areas as preferred feeding habitat. Additionally, bottlenose dolphin (*Tursiops truncatus*) populations are known to migrate into bays, estuaries, and river mouths and could be located in the proposed project area (NMFS 2013a). Bottlenose dolphins have been observed entering and leaving nearshore coastal waters (NMFS 2012).

Smalltooth Sawfish (*Pristis pectinata*)

Smalltooth sawfish (*Pristis pectinata*) do not typically use northern Gulf of Mexico waters (NMFS 2013b).

Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)

Gulf sturgeon are restricted to the Gulf of Mexico and its drainages, occurring primarily from the Pearl River in Louisiana to the Suwannee River, in Florida (NMFS 2009). Adult fish reside in rivers for 8 to 9 months each year and in estuarine or Gulf of Mexico waters during the 3 to 4 cooler months of each year (NMFS 2009). Important marine habitats include seagrass beds with sand and mud substrates (Mason and Clugston 1993). No Gulf sturgeon critical habitat is within the project area.

Bald Eagles

The bald eagle was delisted by the USFWS and is not listed as threatened or endangered by the FWC. The bald eagle is, however, protected by state law pursuant to 68A-16, Fla. Admin. Code and by the U.S. government under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Bald eagles feed on fish and other readily available mammalian and avian species and are dependent on large, open expanses of water for foraging habitat. In Florida, conservation measures to protect active nest sites during nesting season must be considered to reduce potential disturbances of certain project activities. If bald eagles are found nesting within 660 feet of a proposed construction area, then activities would need to occur outside of nesting season or coordination with the USFWS would occur to determine if a permit is needed, and Florida's *Bald Eagle Management Plan* guidelines would be followed (FWC 2008). During statewide bald eagle nesting territory surveys, no bald eagle nests occur within 1 mile of the project site.

Migratory Birds

The proposed project was also reviewed for impacts to bald eagles and migratory birds in accordance with the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-712), respectively. Table 12-10 provides a summary of the different migratory bird groups specifically addressed by this review and summarizes the potential impacts to these groups and associated habitats that could result from the implementation of this project.

Table 12-10. Potential project impacts to different migratory bird groups

SPECIES	BEHAVIOR	SPECIES/HABITAT IMPACTS
Shorebirds	Foraging, feeding, resting, nesting	At the project sites, shorebirds likely forage and rest and could be locally and temporally impacted during construction. Shorebirds nest, forage, feed, and rest on Shell Island. As such, they may be impacted by visitors traveling from the project sites to Shell Island.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Resting, roosting, nesting	Seabirds forage in water and rest/roost in terrestrial habitats at Shell Island. However, the level of project activity could startle resting birds. Because activities will occur during the day roosting should not be impacted.

Considering the nature of the potential project and the potential impacts to migratory bird groups and associated habitats, a number of conservation measures were identified and will be followed to minimize potential impacts. These measures are summarized in Table 12-11.

Table 12-11. Conservation measures to minimize impacts to migratory bird groups

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Shorebirds	In general, the Trustees expect foraging and resting birds would be able to move to another nearby location to continue foraging and resting if disturbed during construction. Shorebirds are not expected to be nesting in the area of construction but use nearby areas that could be visited by people using the ramps. Educational signage will be posted at each ramp and pier to prevent impacts to migratory birds at Shell Island and other locations. Signs will be developed in coordination with FWC and the Panama City Ecological Services Field Office to detail conservation measures to protect shorebirds in nearby habitats.

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. All disturbances will be localized and temporary. The general behavior of these birds is to mediate their own exposure to human activity when given the opportunity, which they will have. Roosting should not be impacted because the project will occur during daylight hours only. Nesting should not be impacted because the project will not occur near nesting habitats. Educational signage will be posted at each ramp and pier. Signs will be developed in coordination with FWC and the Panama City Ecological Services Field Office to detail conservation measures to protect seabirds while visitors may be fishing. Protective measures will also be implemented in the design phase and include the use of pointy, white, piling caps and containers for waste fishing gear.

Essential Fish Habitat

EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seeks to minimize adverse impacts on habitat caused by fishing and non-fishing activities. The NMFS has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column. The EFH within the project area include emergent wetlands, mud substrate, and estuarine water columns for species of fish, such as red drum, brown shrimp, pink shrimp, and white shrimp. There are no marine components of EFH in the vicinity of the project site.

Table 12-12 provides a list of the species that NMFS manages under the federally Implemented Fishery Management Plan in the vicinity of the Panama City, St. Andrew's Marina site and St. Andrew's Bay.

Table 12-12. Federally managed fisheries with designated Essential Fish Habitat (EFH) in the proposed project area .

EFH_CATEGORY	SPECIES
Atlantic Highly Migratory Species	
	Atlantic Sharpnose Shark - Neonate
	Blacktip Shark – Adult
	Blacktip Shark – Juvenile
	Blacktip Shark – Neonate
	Bonnethead Shark - Juvenile
	Bonnethead Shark- Neonate
	Bull Shark – Juvenile
	Nurse Shark – Juvenile
	Sandbar Shark – Adult
	Scalloped Hammerhead Shark - Juvenile
	Scalloped Hammerhead Shark - Neonate
	Spinner Shark - Juvenile
	Spinner Shark - Neonate
	Tiger Shark – Juvenile
	Tiger Shark – Neonate

EFH_CATEGORY	SPECIES
Coastal Migratory Pelagics of the Gulf of Mexico AND South Atlantic	
	Cobia
	King Mackerel
	Spanish Mackerel
Gulf of Mexico Red Drum	
	Red Drum
Gulf of Mexico Shrimp	
	Brown Shrimp
	Pink Shrimp
	White Shrimp
Reef Fish Resources of the Gulf of Mexico	
	Almaco Jack
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper
	Blueline Tilefish
	Cubera Snapper
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper
	Red Snapper
	Scamp
	Silk Snapper
	Snowy Grouper
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper

Environmental Consequences

Section 7 Consultation

The USFWS reviewed the proposed Panama City St. Andrews Marina Facility Docking Facility Expansions project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA. On March 24, 2014, the review of potential impacts to species managed by USFWS was completed (McClain, 2014). The USFWS concurred with the

Trustees' determination that the proposed project may affect, but is not likely to adversely affect, five species of sea turtles in terrestrial habitats (green, hawksbill, Kemp's ridley, leatherback, and loggerhead), Choctawhatchee beach mouse, West Indian manatee, piping plover, and red knot (if listed). The USFWS also concurred with the Trustees' determination that the project will not adversely modify or destroy critical habitat for the Choctawhatchee beach mouse or piping plover.

Consultation of potential impacts on protected species managed by NMFS from this project was initiated on February 19, 2014. The Trustees' review of the potential impacts of the project for protected species managed by NMFS determined the proposed action "may affect, but is not likely to adversely affect" the following species and associated critical habitats in the project implementation area:

- Gulf Sturgeon - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Smalltooth Sawfish – The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Green Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Loggerhead Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Hawksbill Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Leatherback Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Kemp's Ridley Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.

Concurrence from NMFS with the Trustees' conclusions for these species and associated critical habitats is still pending.

The Trustees also evaluated the potential for take of Marine Mammals under the MMPA and due to these species' mobility and the implementation of NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006), *Standard Manatee Conditions for In-Water Work* (USFWS 2011), and USFWS recommended conservation measures for listed species and other trust resources, take of marine mammals under the MMPA is not anticipated.

Migratory Birds and Bald Eagle:

There are no bald eagle nests in proximity to the project site and there is no suitable nesting habitat at the site. Therefore, there would be no impacts on bald eagles. At the same time, implementation of the conservation measures previously identified in the review of potential impacts to migratory birds will prevent take of the identified migratory bird groups.

Essential Fish Habitat

The Trustees' review of the potential project impacts on EFH concluded the project is not likely to adversely affect EFH as the proposed marina restoration will take place within the footprint of the

existing marina facility and a very small area of subtidal habitat may be converted with the placing of pilings for the new boat slips and the new floating dock.

On March 17, 2014 NMFS completed its evaluation of potential EFH impacts and concluded that impacts to EFH will be minor and brief (Fay, 2014).

Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem with the project area, and possibly expand out into adjacent areas after the initial introduction. The invasive species threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 3 described more about the regulations addressing invasive species, pathways, impacts, and prevention. At this time specific invasive species that may be present on the project site or could be introduced through the project have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.33.5.4 Human Uses and Socioeconomics

12.33.5.4.1 Socioeconomics and Environmental Justice

Affected Resources

Panama City, similar to the rest of the Florida Panhandle, relies on the coastal waters of the Gulf of Mexico to provide a variety of economic and social benefits to its residents and visitors. The coastal ecosystems in the project area support a wide variety of commercial and recreational activities that contribute significantly to the State's economy. Sport and commercial fisheries are some of the most notable economic highlights within the region and the State. The marine environments within the area also provide essential transportation links, support a variety of water-dependent facilities, and offer an array of recreational opportunities that attract thousands of visitors to the area each year (FDEP, no date).

The 2011 median household income in Panama City was \$37,733 (City-data.com 2013). The largest employment sectors in the Panama City-Lynn Haven-Panama City Beach MSA in 2012 were government; leisure and hospitality; and trade, transportation, and utilities (BLS 2012).

Environmental Consequences

No adverse socioeconomic impacts are expected as a result of the proposed project. The proposed project would benefit the local economy during construction through the provision of a small number of construction jobs and associated spending on goods and services by construction workers. Following completion of construction, the project would provide improved facilities to accommodate water-based recreational activities. The limited additional docking space created is not expected to have any long-term socioeconomic impacts.

12.33.5.4.2 Cultural Resources

Affected Resources

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Environmental Consequences

A complete review of this project under Section 106 of the NHPA is ongoing and would be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within the project area. This project would be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

12.33.5.4.3 Infrastructure

Affected Resources

Infrastructure in the Florida panhandle consists of a network of interconnected structures, support facilities and transportation systems. Physical infrastructure and public services include commonly provided Federal, State, county, parish, municipal, and/or private facilities and utilities that support development and protect public health and safety.

Panama City is well served by a network of regional arterials and state and U.S. highways. Roadway access to St. Andrews Marina is via Beck Avenue, a two-lane state roadway that is coterminous with U.S. Highway 98 Business Route. Its parent highway, US Highway 98, links Mississippi with southern Florida and closely follows the Gulf coast from the Florida-Alabama state line to St. Marks, Florida. The closest public airport to the project site is Northwest Florida Beaches International Airport, located approximately 16 miles northwest of the project site.

Water and wastewater services in the project area are provided by the City of Panama City. Five private waste haulers are permitted to provide sanitation services. Electric service is provided by Gulf Power Company and gas service is provided by TECO. Cable television and internet are provided by Mediacom, and phone service is provided by AT&T.

Environmental Consequences

During construction of the marina improvements, the proposed project would potentially have minor adverse impacts to infrastructure due to traffic delays and roadway damage associated with construction vehicle traffic; utility service interruptions and potential accidental damage to utility infrastructure; and closure of the marina to public use. Following completion of construction, the proposed improvements could lead to an increase in visitor use; however, visitor use is not expected to increase to the point where associated wear on infrastructure would lead to adverse impacts. Overall, the proposed project is expected to have long-term beneficial impacts on infrastructure through the provision of expanded and enhanced marina facilities.

12.33.5.4.4 Land and Marine Management

Affected Resources

Development in the City of Panama City is guided by the Panama City Comprehensive Plan and regulated according to the Panama City Land Development Code (City of Panama City 2013; 2011). Zoning and land development decisions are subject to review and approval by the City Commission as advised by the Planning Board. The project site is situated on land owned by the City of Panama City and zoned for Public/Institutional (P/I) use (City of Panama City 2011). The proposed project is a permitted use in the Public/Institutional district (City of Panama City 2011). Land uses surrounding the site include commercial, multi-family residential, and park uses.

Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS (Federal Trustees 2013). The State of Florida responded and concurred with the federal determination of consistency at this point in the early restoration planning process (Milligan 2014).

Environmental Consequences

No changes would occur to the current use at St. Andrews Marina, or to uses on adjacent and nearby properties. Land ownership would remain the same, and the site would continue to be managed as a public marina. The proposed project would be consistent with the City of Panama City Zoning Code, since it is a permitted use in Public/Institutional districts.

12.33.5.4.5 Aesthetics and Visual Resources

Affected Resources

Panama City is situated on St. Andrews Bay, a 69,000 acre estuary that outlets to the Gulf of Mexico approximately 3.5 miles southwest of the project site. The landscape in the region is characterized by beaches, tidal flats, dunes, marshes and coastal waterways. Development in the project area is characteristic of urban development in the Panama City metropolitan area, and consists of commercial and multi-family residential buildings and related landscape planting, with unobstructed views of St. Andrews Bay from the marina.

Environmental Consequences

Temporary impacts to aesthetics and visual resources would result from implementation of the proposed marina improvements. Construction equipment would be temporarily visible to visitors and recreational users. These construction-related impacts to visual resources would be adverse but minor, since the amount of construction equipment required to complete the project would be limited, and construction activities and equipment would be visible to residents and visitors for a maximum of one year. The proposed project would take place at the site of an existing marina and would not change the overall visual appearance of the site or surrounding area; therefore, no long-term impacts to aesthetics and visual resources are anticipated.

12.33.5.4.6 Tourism and Recreational Use

Panama City is the principal city of the Panama City-Lynn Haven-Panama City Beach Metropolitan Statistical Area (MSA), a popular tourist destination that receives approximately six million visitors annually (Panama City Beach 2013). Locals and tourists spend much time swimming, beachcombing, boating, fishing, diving, kayaking, surfing, and engaging in other active and passive activities near the beach. Beach usage peaks during the winter and spring, and subsides during the summer.

Environmental Consequences

During the construction period, tourism and recreational use would be negatively impacted by noise and visual disturbances associated with the use of construction equipment. Public access to the marina may be limited during construction activities. While these temporary inconveniences would result in minor negative impacts on tourism and recreational use, over the long term the project would result in beneficial impacts to tourism and recreational use. Opportunities for ocean-based recreational activity would be enhanced as a result of improved facilities. The project would not be expected to result in a notable increase in the number of visitors, due to its limited scope; however, the project would contribute to an improved experience for visitors and local residents using the marina. To the extent that visitor use increases as a result of the proposed project, it would have beneficial impacts to tourism as well. Overall, adverse impacts to tourism and recreational use would be short term and minor. Over the long term, the project would result in beneficial impacts to tourism and recreational uses.

12.33.5.4.7 Public Health and Safety and Shoreline Protection

Affected Resources

The management of hazardous materials is regulated under various federal and state environmental and transportation laws and regulations, including the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Emergency Planning and Community Right-to-Know Act, and the Hazardous Materials Transportation Act. The purpose of the regulatory requirements set forth under these laws is to ensure the protection of human health and the environment through proper management (identification, use, storage, treatment, transport, and disposal) of these materials. Some of these laws provide for the investigation and cleanup of sites that have already been contaminated by releases of hazardous materials, wastes, or substances.

The project site lies within an existing developed area characterized by commercial and multi-family residential areas. A review of the USEPA EnviroMapper revealed that there are no sources of contamination or hazardous materials located on or immediately adjacent to St. Andrews Marina. Two

automotive facilities reporting sources of hazardous waste are located 0.2 and 0.3 mile from the marina, respectively (USEPA 2013c). No sources of hazardous, toxic and radioactive waste (HTRW) are otherwise known to exist within the project area. Boats launching and landing at the ramp could potentially serve as a source of non-point pollution resulting from inadvertent releases of fuel or oil.

Environmental Consequences

Project construction would utilize mechanical equipment that uses oil, lubricants and fuels. The contractor would be required to take appropriate actions to prevent, minimize, and control the spill of construction related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills. If a release should occur such releases would be contained and cleaned up promptly in accordance with all applicable regulations. As a result, no impacts associated with construction-related hazardous materials would be anticipated.

Because of the nature and location of the project, no impacts to public health and safety or shoreline erosion are anticipated as a result of construction activities. The project and its construction are not anticipated to generate hazardous waste or the need for disposal of hazardous waste. In the event of a fuel or oil spill from construction equipment, all procedures, regulations and laws pertaining to Oil Spill Prevention and Response would be adhered to and the incident would be reported to appropriate agencies. All occupational and marine safety regulations and laws would be followed to ensure safety of all workers and monitors. Therefore, it is anticipated that the proposed project would have no impacts to public health and safety.

12.33.6 Summary and Next Steps

The proposed FWC Strategic Boat Access: Panama City St. Andrews Marina Docking Facility Expansions project would improve the existing St. Andrews Marina docking facility in Panama City. The proposed improvements include adding three boat slips, replacing the boat ramp, and replacing a fixed wooden dock with a concrete floating dock. The project is consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project would enhance and/or increase recreational boating and fishing opportunities by improving the marina. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

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12.34 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description C (City of Parker, Donaldson Point Boat Ramp Improvements)

The Strategically Provided Boat Access along Florida's Gulf Coast: City of Parker, Donaldson Point Boat Ramp Improvements project component has been dropped from the Final Phase III ERP/PEIS. During the public comment period it was discovered that some uncertainty existed as to whether the City of Parker owned the property at which the proposed boat ramp was to be constructed. Rather than get involved in lengthy and costly legal investigations into ownership the City of Parker requested the Trustees to withdraw this project. Total funds allocated to Donaldson Point Boat Ramp project component were \$60,569.00.

The funds from Strategically Provided Boat Access along Florida's Gulf Coast: City of Parker, Donaldson Point Boat Ramp project component will be re-allocated to the Strategically Provided Boat Access along Florida's Gulf Coast: City of Parker, Earl Gilbert Dock and Boat Ramp Improvements project component. (see Section 12.35). After a recent inspection of the Earl Gilbert project site, it has been determined that several issues will need to be addressed in the final designs and permitting of this project that will increase the project costs. Increased costs to the project would include stormwater management improvements for approximately \$30,569.00, alternative piling installation technique for approximately \$15,000.00 and accessibility improvements for approximately \$15,000.00. Total estimated costs to address the above issues will be \$60,659.00. None of the proposed improvements would change the footprint of the originally proposed Earl Gilbert Boat Ramp project component. The re-allocation of funds from the Donaldson Point Boat Ramp project component to the Earl Gilbert Boat Ramp project component does not affect the BCR that was negotiated with BP for the Strategically Provided Boat Access along Florida's Gulf Coast suite of projects.

12.35 Strategically Provided Boat Access along Florida's Gulf Coast: Environmental Review C (City of Parker, Donaldson Point Boat Ramp Improvements)

The Section has been intentionally left blank, due to removal of this project component in the Final Phase III ERP/PEIS.

12.36 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description D (City of Parker, Earl Gilbert Dock and Boat Ramp Improvements)

12.36.1 Project Summary

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of Parker Earl Gilbert Dock and Boat Ramp Improvements) project would improve the existing Earl Gilbert dock and boat ramp in the City of Parker. The proposed work includes improving the existing dock and expanding the existing parking. The total estimated cost of the project is \$169,929.

12.36.2 Background and Project Description

The Trustees propose to improve and enhance the existing Earl Gilbert dock and boat ramp in the City of Parker (see Figure 12-5 for general project location). This project builds on an ongoing effort initiated by the FWC through its Florida Boating Improvement Program which, in part, is used to fund applications from local governments in a competitive grant process for boat access improvement projects in remote areas, small towns and cities, and coastal counties (for more information on the program see <http://myfwc.com/boating/grant-programs/fbip/>).

The objective of the proposed City of Parker Earl Gilbert Dock and Boat Ramp Improvement project is to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The restoration work proposed includes improving the existing dock and expanding the existing parking.

12.36.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of their natural resources along Florida's Panhandle was denied or severely restricted. The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of Parker Earl Gilbert Dock and Boat Ramp Improvements) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses caused by the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Agencies have successfully completed projects of similar scope throughout Florida over many years, including similar types of actions in earlier phases of the Deepwater Horizon Early Restoration. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.36, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.36 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

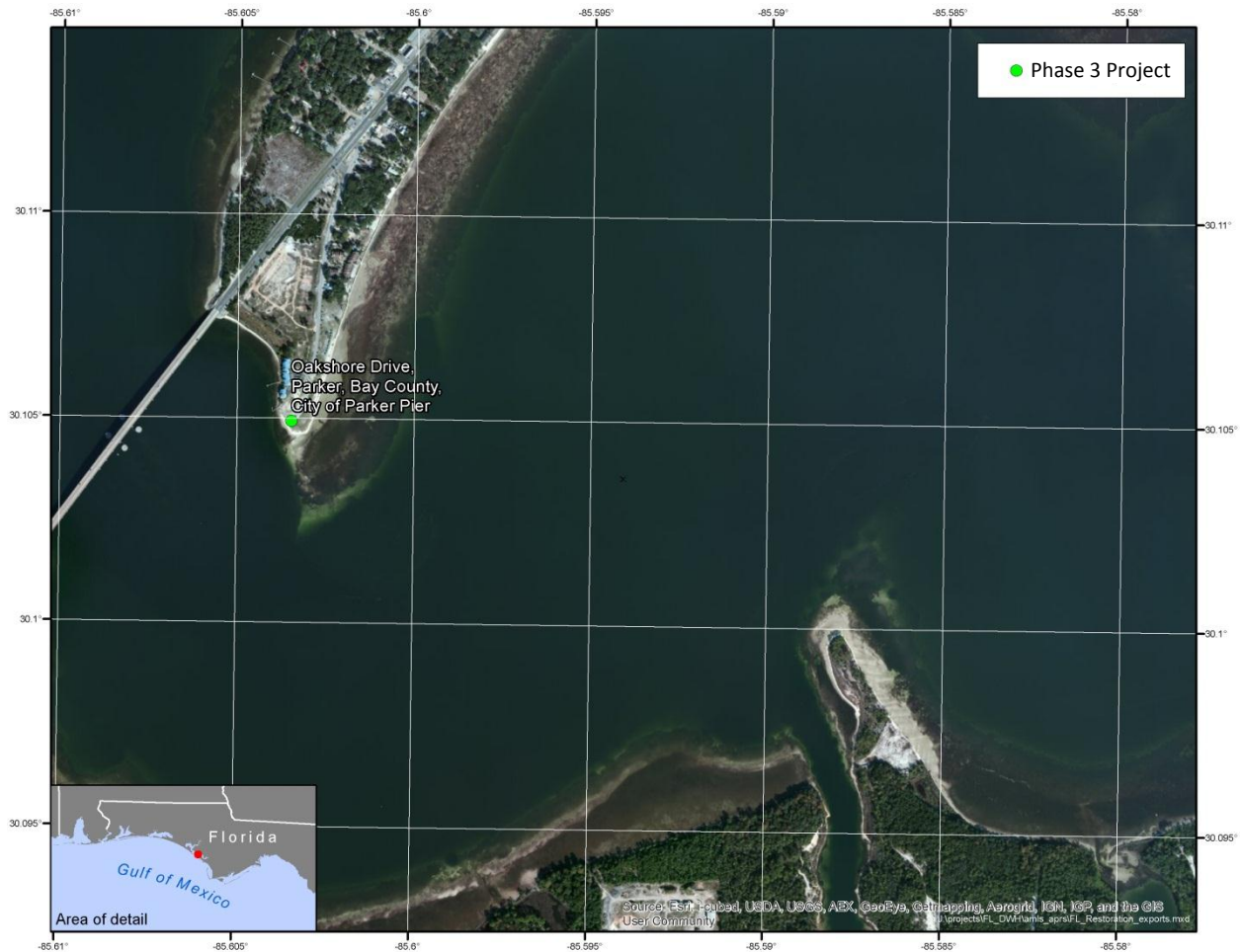


Figure 12-5. Location of FWC Strategic Boat Access City of Parker, Earl Gilbert Dock and Boat Ramp Improvements.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (<http://www.gulfspillrestoration.noaa.gov>) and to the State of Florida (<http://www.deepwaterhorizonflorida.com>). In addition to meeting the criteria for the Framework Agreement and OPA, the Florida FWC Strategic Boat Access: City of Parker, Earl Gilbert Dock and Boat Ramp Improvements project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.36.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the existing boat ramp facility. Performance monitoring will evaluate: 1) the improvement of the existing dock, and 2) expansion of the existing parking. Specific performance criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp facility is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by the City of Parker as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by the City of Parker.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of Parker will monitor the recreational use activity at the site. The City of Parker will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

In addition, the State of Florida Trustees and the Department of the Interior recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient, concurrent with the twice annual performance monitoring, and performed by the same party, a survey will be taken of a sample of recreational users at the project location.

12.36.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Strategically Provided Boating Access along Florida's Gulf Coast project, of which this is a component, are \$6,496,680 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined

by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.¹³

12.36.6 Costs

The total estimated cost to implement this project is \$169,929. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of publication of the Final Phase III ERP/PEIS. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

¹³ For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.37 Strategically Provided Boat Access along Florida's Gulf Coast: Environmental Review D (City of Parker, Earl Gilbert Dock and Boat Ramp Improvements)

Florida proposes to make several improvements at the existing Earl Gilbert Park. Included in these changes are improvements to the existing dock, along with the addition of six (6) boat trailer spaces. This property is located near the southernmost boundary of the City limits and is owned by the City of Parker.

The project would provide boaters enhanced access to St. Andrews Bay and the Gulf of Mexico. This project would help address the reduced quality and quantity of recreational activities (e.g., boating and fishing) in Florida attributable to the Deepwater Horizon Oil Spill.

12.37.1 Introduction and Background

In April 2011, the Natural Resource Trustees (Trustees) and BP Exploration and Production, Inc. (BP) entered into the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement). Under the Framework Agreement, BP agreed to make \$1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is underway. The Framework Agreement is intended to expedite the start of restoration in the Gulf in advance of the completion of the injury assessment process. Early restoration is not intended to, and does not fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement), the Trustees released, after public review of a draft, a Phase I Early Restoration Plan (ERP) in April 2012. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, the National Oceanic and Atmospheric Administration (NOAA) issued a public notice in the Federal Register on behalf of the Trustees announcing the development of additional future Early Restoration projects for a Draft Phase III Early Restoration Plan (ERP). This project was submitted as an Early Restoration project on the NOAA website (<http://www.gulfspillrestoration.noaa.gov>) and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and the Oil Pollution Act (OPA), the project meets Florida's criteria that Early Restoration projects occur in the eight-county Florida panhandle area that deployed boom and was impacted by the Spill.

The project location is owned by FWC and includes a single-lane boat ramp with a parking area. It is on a peninsula just east of the Tyndall Parkway Bridge. Existing structures at the site include a public boat ramp, dock, and parking area in a partially developed area. There are no slips present. The current dock is L-shaped and has a total over-water area of approximately 600 square feet. The proposed project is to repair the dock and improve parking at the location.

The total estimated cost to implement this project is \$169,929. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project.

negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

12.37.2 Project Location

Earl Gilbert Park is located at 6511 Oak Shore Drive, Parker, Bay County Florida, Bay County, Florida, in Section 25, Township 4-S, Range 14-W, at latitude $30^{\circ} 10' 52.18''$ north and longitude: $-85^{\circ} 25' 31.04''$ west. The project site is located at the southern terminus of Oakshore Drive, at the tip of Long Point, a peninsula extending into St. Andrews Bay in the extreme southern portion of the city. Construction activities are to occur at the southern end of Long Point, along the shoreline and in nearshore waters of St. Andrews Bay, which is a 69,000 acre estuary with direct access to the Gulf of Mexico (Figure 12-6).

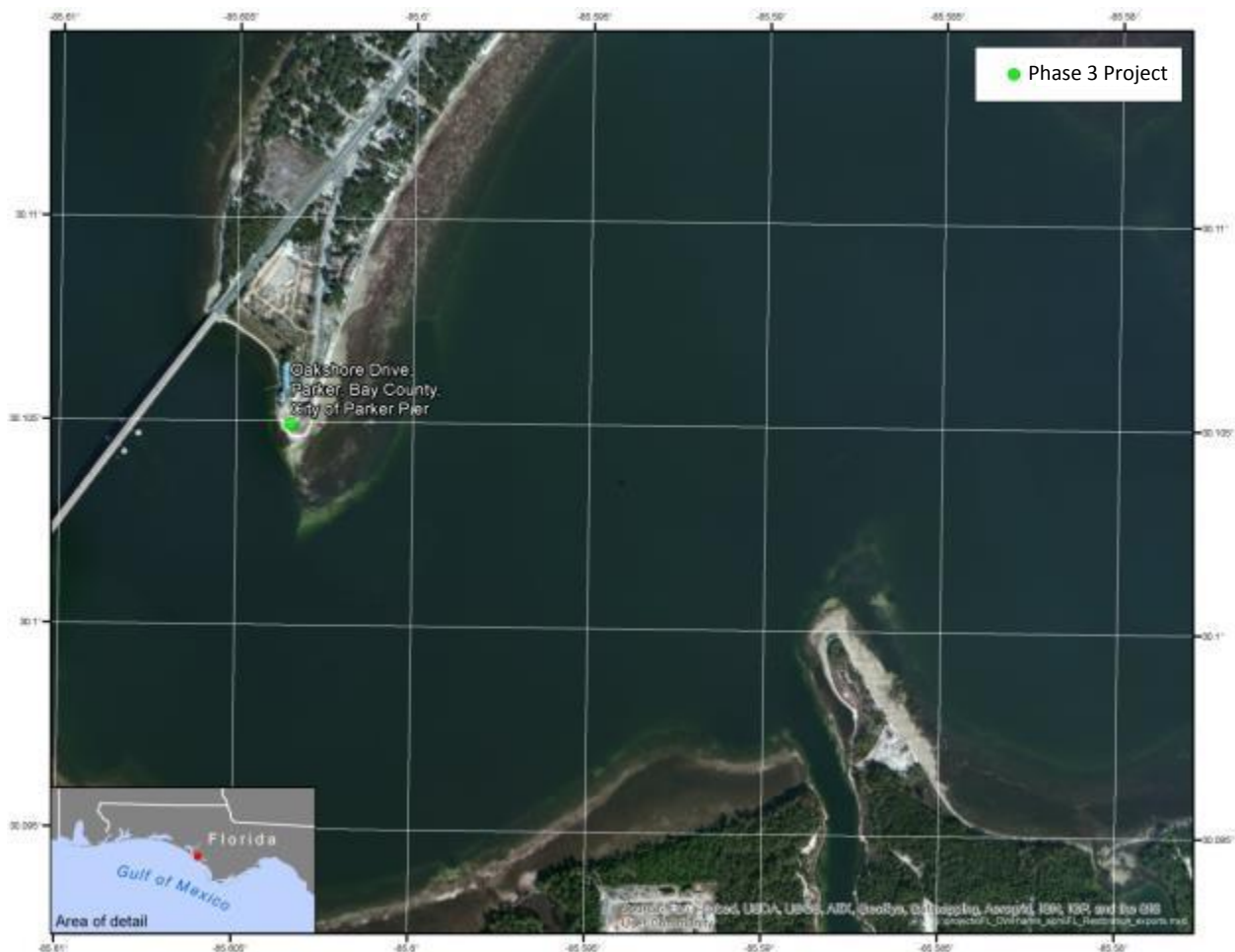


Figure 12-6. Vicinity and project location.

12.37.3 Construction and Installation

The proposed work includes improving the existing dock and boat ramp and expanding the existing parking with the planned addition of 6 boat trailer spaces.

Work on the dock would consist of renovations to the existing dock instead of removing and constructing a new dock. The existing dock consists of wooden planks and the work would include conducting repairs to replace damaged sections with new wood material in order to improve the safety of the dock. The general size, material, and design of the dock will not change. The existing dock is approximately 3 feet height above MHW (which will not change). The existing dock runs perpendicular and then parallel to the shore (L-shaped) and has an estimated surface area is 600 square feet.

As part of the dock renovations there would be an initial survey of submerged aquatic vegetation (SAV) in the area where the work would be completed. Should SAV be identified in the project area, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) would be implemented, as relevant.. Among other elements, these guidelines address decking material and spacing.

The site also contains a single-lane, paved boat ramp (approximately 30 ft wide). The existing boat ramp would be repaired within the current boat ramp footprint. While final plans have not been developed for this project, the construction work associated with repairs/replacement of a boat ramp can be summarized in terms of executing a number of specific tasks and subtasks including:

Task 1. Site Preparation

- b. Prior to beginning any waterward work at the boat ramp site the project area needs to be surveyed and marked. Turbidity curtains are then installed to encapsulate the work area and other erosion control methods are put in place on the landward side of the project (e.g., placement of hay bales) to prevent erosion into the water from equipment movement and any work being performed on the upland areas.

Task 2. Ramp Repairs/Construction

- d. The area for the ramp is surveyed in and marked by stake or pole (typically small diameter 2" or less PVC).
- e. A coffer or bladder dam is installed and the water within the dam, between the waterward extent of the ramp and the land, is pumped out to upland storage ponds or run through a filter system to remove any sediment in the water before returning it to the receiving waterbody. The work area is kept dry by use of dewater pumps (ground water to be pumped is first sampled and tested for water quality) and disposed of in the same manner as the pumped surface water. This dewatering operation is run continuously throughout the construction of the ramps. Once the ramps are completed the dewatering pumps are shut down and the dams are removed.
- f. Construction of the ramps begins once the area is sufficiently dry to remove unsuitable soils, if necessary, and replaced with suitable soil. This soil is then compacted to specification. Then the

base material for the ramp is placed, usually a rock material. After placement and compaction of the base the ramp is formed, reinforcing steel placed and then the concrete poured and finished. Once curing of the concrete is complete the forms are removed and the coffer or bladder dams are removed.

Task 3. Monitoring

- f. Every day, before the start of construction activities, the turbidity screen is checked and repaired if necessary.
- g. The foreman or other designated individual checks the area inside the screen and the screen itself to see if any protected species (manatees, dolphins, small tooth sawfish etc.) have gotten trapped within the work area or in the screen. If so then appropriate (FWC) personnel are notified to request removal. No work is begun until the animal, fish or bird is removed.
- h. During the work day the work area and area adjacent to the work are monitored to make sure protected species have not ventured into the area. If so then work is stopped until the animal moves out of the area.
- i. At the end of the day the area is checked for debris, sediment and possible spillage and these are properly removed and disposed of before shutting down the site.
- j. If a storm is anticipated that might damage the turbidity screen it is removed and stored until the storm event has passed and seas have resided.

Best management practices (BMPs) for erosion control associated with the ramp and parking lot work would be implemented and maintained at all times during construction to prevent siltation and turbid discharges into waters of the state. Upland silt and sedimentation control measures would be installed and properly maintained at all points where runoff from disturbed areas could result in water quality impacts. This may include the use of filter fences (staked or floating), sedimentation screens, erosion control blankets or other appropriate erosion and turbidity control measures. The in-water use of silt curtains and the dewatering of work areas for the boat ramp repairs would further help limit the scope, nature, and extent, of any turbidity impacts.

One of the critical elements of the effort to limit impacts associated with the project development will be the consideration of, review for, and ultimate implementation of stormwater management controls for the project. Although each project site will pose its own issues when developing the stormwater and sediment control plans for pre, during, and completion of construction plans there is a standard approach to preparing these designs characterized by the following steps, which are distinguished by their relationship to construction, that will be followed for this project:

1. Development of Pre-construction or existing conditions plans w/erosion and sediment control (E&SC) features. These pre-construction plans will illustrate what sediment control measures will be initially installed and their location in order to minimize impacts to receiving waterways when upland land disturbance activities begin. These plans will be based upon an existing site survey delineating the project boundaries, site topography, topographic features (vegetation, soil types, impervious and pervious areas, water bodies (streams and ponds), wetlands, drainage channels, existing structures, drainage basins, flow patterns and major points where stormwater

enters and exits the site. The survey should extend to at least 50 feet beyond the project site and contours should depict intervals of 0.5 to 2.0 feet. The pre-construction plans should also identify phases of construction and areas that will be disturbed along with the overall limits of construction or disturbance. Sensitive areas (e.g., locations of sensitive/protected flora and fauna, wetlands, excessive slopes and unsuitable soils) should also be identified. Taking all the above information from the survey into consideration the designer will designate the locations and describe the structural controls to be installed in order to minimize erosion and control sediment from reaching adjacent receiving waters and wetlands. The most important aspect of the pre-construction drawings is to identify where water flows through the project site and where critical discharge points are located. The nature and location of best management practices (BMP's) that will then be emplaced and incorporated prior to construction are determined from these drawings. BMP's commonly identified/used include: placing combinations of silt screens, hay bales, fiber logs, and temporary vegetation down gradient of areas to be disturbed. Other sediment and stormwater control options include installing sediment ponds or traps or diversion berms and conveyance channels to redirect runoff and sediment from receiving waters.

2. Development of During Construction grading plans. These plans may be incorporated with the pre-development plans when feasible for a simple site but otherwise will be developed for depicting E&SC measures to be employed during grading operations. As the project progresses through its various phases of construction it may be necessary to adjust the location of structural E&SC measures or to include additional ones. These plans will show areas for stockpiling top soils and other materials and how they are to be contained (silt fencing, berms etc.), equipment storage areas and refueling areas (if allowed) with protective measures to be employed such as containment berms or absorbent material for possible spills. These plans may also include final stormwater control structures such as retention/detention ponds. These plans will also include requirements for inspection and maintenance of the BMP's such as inspections and repair/replacement, if necessary, after every storm event. These plans will point out to the contractor critical containment contours to ensure that optimal treatment of runoff from the disturbed areas is realized and minimal impact occurs to receiving waters.
3. Final Grading or Construction Plans. These plans will show how the site is to look upon completion of construction, final grades, stormwater controls and final stabilization of disturbed lands. These plans will include final landscaping (sod, mulching, plants (native trees and shrubs), ditch or swale lining utilizing sod mats, ditch breaks etc., and slope stabilization. Final grades on all impervious areas such as parking, entry and exit drives will be designed so as to reduce runoff velocity and direct runoff into drainage conveyance systems and finally into treatment ponds dry or wet type depending on groundwater depths where the majority of runoff is treated before being released into the receiving waters. The design capacity of the treatment ponds will be based upon SCS curves for the required design storm event. Release of stormwater from the sites will be at pre-construction rates. Outlet controls BMP's may include rip rap installation where necessary to control erosion at exit points. Most boat ramp installations will also include the installation of trench drains at the top of the ramps to capture runoff from the drive areas and

divert it to treatment areas or pass it through a filter “sock”. Projects that have sufficient budgets and suitable site conditions may also consider the placement of pervious concrete in lieu of asphalt or concrete driving surfaces. The final grading plans will describe when and where removal of BMP construction sediment control structures (silt fencing, diversion berms etc.) is to be done i.e. establishment of 70% of permanent vegetation. The final part of the stormwater management system is the development of the monitoring or maintenance plan which will describe the frequency of inspection (after every major storm, x’s per year etc.) and maintenance (removing sediment from ponds and swales, cleaning or replacing sand filter beds, replacing sediment “sock” in trench drain) and what actions to take when the system has been reduced in efficiency or has failed.

In addition, while no analysis has been completed to evaluate how the improvements to the Parker Earl Gilbert boat ramp may affect future use by recreators, the FWC does, on occasion, recommend the installation of seagrass information signs (Caution: Seagrass) in shallow waters around dredged channels or in areas affected by human activities where seagrass habitats are present. FWC's Boating and Waterways unit, part of the Division of Law Enforcement, lacks authority to permit regulatory signs for natural resource protection, but it has the authority to permit informational signs. Generally, seagrass informational signs are installed in waters along a 3' contour adjacent to shallow seagrass beds in order to warn boaters of the potential for running a ground or striking the bottom and damaging seagrass. This is not always recommended for permitted projects, but it is often employed when attempting to prevent damage by boaters along dredged channels and from boating access corridors.

Critically, during any in-water construction activity, the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006) would be implemented and adhered to. These provisions include stopping operation of any equipment if sea turtles or smalltooth sawfish come within 50 feet of the equipment until the time when animals leave the project area of their own volition.

It is expected that the in-water work associated with this project would last no more than 3 months.

12.37.4 Operations and Maintenance

Long-term monitoring and maintenance of the improved facilities would be completed by the City of Parker as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and would be accomplished by the City of Parker.

During the one year construction performance monitoring period, the Florida Trustees’ Project Manager would go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of Parker would monitor the recreational use activity at the site. The City of Parker would visit the site twice a year to count the number of users at the boat ramp. The visitation numbers would then be provided to the Florida Department of Environmental Protection.

In addition, the State of Florida Trustees and the Department of the Interior recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public’s awareness of the educational signage intended to

minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient, concurrent with the twice annual performance monitoring, and performed by the same party, a survey will be taken of a sample of recreational users at the project location.

12.37.5 *Affected Environment and Environmental Consequences*

Under the National Environmental Policy Act, federal agencies must consider environmental impacts of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.37.5.1 *No Action*

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.37.5.2 *Physical Environment*

12.37.5.2.1 *Geology and Substrates*

Affected Resources

The project lies in the Gulf coastal lowlands physiographic province (Allen and Main 2005). The landscape of the Gulf coastal lowlands is comprised of a relatively flat terrain, ranging in elevation from 0 to about 50 feet above mean sea level. Soils in the coastal panhandle of Florida consist predominately of medium to fine grain sands and silts associated with recent Pleistocene formations. A study at Tyndall Air Force Base indicates that sediments in the St. Andrews Bay range from fine sands to silts (NOAA 1997).

The soils in the project area have been identified and mapped by the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS 2013). The NRCS data identified three soils mapped within the project and vicinity. There are Foxworth sands, 5 to 8 percent slopes, Arents, 0 to 5 percent slopes (Soil Unit 40) and Kureb sand, 0 to 5 percent slopes.

Foxworth sand soils are moderately well drained. This soil has a very low available water capacity, low natural fertility, and low organic matter content throughout. Permeability is very rapid.

The Arents soils consist of manmade land mixed by earth-moving operations, including cutting, leveling, dredging, or filling activities or any combination of these operations (USDA 1984). Slopes are smooth. These soils are a mixture of different soils types and fill. Depth to water table is variable in these soils. Permeability is variable. Natural fertility is generally low.

The Kureb soils are excessively drained nearly level to sloping soil. Slopes are smooth to convex. These soils have very low available water capacity. Permeability is rapid and the natural fertility and organic matter content is low. The water table is below a depth of 80 inches throughout the year.

Environmental Consequences

There are no anticipated adverse impacts to local geology, soils, and sediments associated with the project. Appropriate erosion control and mitigation measures would be implemented prior to construction. Adverse impacts to geology and substrates would be minor.

12.37.5.2.2 Hydrology and Water Quality

Affected Resources

The proposed project is located on St. Andrews Bay. St. Andrews Bay is within the St. Andrews Bay Watershed (Northwest Florida Water Management District. 2000). The St. Andrew Bay watershed is the only major estuarine drainage basin entirely within the Florida Panhandle. There are nine major streams that flow into St. Andrews Bay. St. Andrews Bay is central in the St. Andrews Bay watershed. St. Andrews Bay is designated as a SWIM Priority Waterbody by the Northwest Florida Water Management District.

Environmental Consequences

With required mitigation in place, impacts to water quality are expected to be minimal. All permit conditions requiring mitigation measures for siltation, erosion, turbidity and release of chemicals would be strictly adhered to. During construction, Best Management Practices and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts. The Florida Department of Environmental Protection (FDEP) permit conditions require erosion and turbidity mitigation measures. These include:

- Install floating turbidity barriers
- Install erosion control measures along the perimeter of all work areas
- Stabilize all filled areas with sod, mats, barriers or a combination
- If turbidity thresholds are exceeded the project must stop, stabilize the soils, modify the work procedures, and notify the FDEP.

The FDEP permits also constitute a Certification of Compliance with State Water Quality Standards under Section 401 of the Clean Water Act, which means that the project would comply with state water quality standards and other aquatic resource protection requirements.

Impacts from chemicals that could potentially be released from sources such as construction equipment and boats are expected to be negligible. Required spill containment measures would be implemented for applicable construction activities.

The proposed discharge of dredged or fill material into waters of the United States, including wetlands, or work affecting navigable waters associated with this project is currently being coordinated with the U.S. Army Corps of Engineers (Corps) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA). Coordination with the Corps and final authorization pursuant to CWA/RHA will be completed prior to project implementation.

The proposed project would not impact groundwater. The project as designed would result in minor short term impacts to water quality during construction and no long term adverse impacts to hydrology or water quality.

12.37.5.2.3 Air Quality and Greenhouse Gas Emissions

Affected Resources

The Clean Air Act (CAA) requires the State of Florida to adopt ambient air quality standards to protect the public from potentially harmful amounts of pollutants. Six common air pollutants (also known as "criteria pollutants") are regulated by the U.S. Environmental Protection Agency (USEPA) and the states under the CAA. They are particle pollution (often referred to as particulate matter), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. The FDEP has designated areas meeting the state's ambient air quality standards by their monitoring and modeling program efforts, (i.e., attainment areas). Florida has no nonattainment areas within the panhandle region.

Currently, Bay County is classified by USEPA as an attainment area in accordance with the National Ambient Air Quality Standards (NAAQS). The City of Parker is not within a USEPA Class 1 air quality area; however, St. Marks National Wildlife Refuge, located approximately 80 miles to the east, is designated as a Class I air quality area (USEPA 2013a). Class I air quality areas are afforded special protection under the Clean Air Act. Any proposed new or modified sources of air pollution locating within approximately 200 miles (300 km) of a Class I air quality area are asked to consult with the Federal Land Manager to determine whether emission impact modeling to the Class I area should be conducted and submitted to the Federal Land Manager for review (USFWS 2013).

Beginning in 2011, the CAA also regulates emissions of greenhouse gases (GHG) (USEPA 2013b). The USEPA's GHG Reporting Rule establishes mandatory GHG reporting requirements for sources that emit 25,000 metric tons or more of carbon dioxide equivalent (CO₂e) per year (USEPA 2013b).

Environmental Consequences

Project implementation would require the use of barge-mounted and land-based heavy equipment for up to 8 hours per day over a 2-year construction period. This would temporarily affect air quality and elevate greenhouse gas levels in the project vicinity due to emissions and increased dust from operation of construction vehicles and equipment. Any air quality impacts that would occur would be localized, limited to the construction phase of the project, and limited by the size of the project. Therefore, impacts to air quality would be negative but minor and short-term. The project would have no long term impacts on air quality.

Engine exhaust from bulldozers, trucks, backhoes, and other equipment would contribute to an increase in greenhouse gas emissions. Table 12-13 describes the likely greenhouse gas emission scenario for the implementation of this project.

Table 12-13. Greenhouse gas impacts of the proposed project.

CONSTRUCTION EQUIPMENT	NO. OF HOURS OPERATED ¹⁴	CO2 (METRIC TONS) ¹⁵	CH4 (CO2E) (METRIC TONS) ¹⁶	NOX (CO2E) (METRIC TONS)	TOTAL CO2E (METRIC TONS)
Pile Driver	1920	81.6	0.048	0.48	82.13
Bulldozer	1920	81.6	0.048	0.48	82.13
Backhoe (2)	3840	168	0.096	0.96	169.1
Dumptruck ¹⁷	1920	81.6	0.048	0.48	82.13
Cement Truck	1920	81.6	0.048	0.48	82.13
TOTAL					497.62

Based on the assumptions described in Table 12-13 above, GHG emissions would not exceed 25,000 metric tons per year. Given the projected construction-phase GHG emissions, along with the small scale and short duration of the project, predicted impacts from greenhouse gas emissions would be short-term and minor.

12.37.5.2.4 Noise

Affected Resources

Noise can be defined as unwanted sounds and sound levels, and its impacts are interpreted in relationship to impacts on nearby persons and wildlife. The Noise Control Act of 1972 (42 U.S.C. 4901 to 4918) was enacted to establish noise control standards and to regulate noise emissions from commercial products such as transportation and construction equipment. The standard measurement unit of noise is the decibel (dB), which represents the acoustical energy present. Noise levels are measured in A-weighted decibels (dBA), a logarithmic scale which approaches the sensitivity of the human ear across the frequency spectrum. A 3-dB increase is equivalent to doubling the sound pressure level, but is barely perceptible to the human ear. Table 12-14 shows typical noise levels for common sources expressed in dBA. Noise exposure depends on how much time an individual spends in different locations.

¹⁴ Emissions assumptions for all equipment based on 240 8-hour days of operation per piece of equipment over a 12-month construction period.

¹⁵ CO₂ emissions assumptions for diesel and gasoline engines based on USEPA 2009.

¹⁶ CH₄ and NO_x emissions assumptions and CO₂e calculations based on USEPA 2011.

¹⁷ Construction equipment emission factors based on USEPA NONROAD emission factors for 250hp pieces of equipment. Data was accessed through the California Environmental Quality Act Roadway Construction Emissions Model.

Table 12-14. Common noise levels.

NOISE SOURCE OR EFFECT	SOUND LEVEL (DBA)
Rock-and-roll band	110
Truck at 50 feet	80
Gas lawnmower at 100 feet	70
Normal conversation indoors	60
Moderate rainfall on foliage	50
Refrigerator	40
Bedroom at night	25

Source: Adapted from BPA 1986, 1996

Noise levels in the project area vary depending on the season, time of day, number and types of noise sources, and distance from noise sources. Existing sources of noise in the project area include motor vehicle traffic on Highway 98, recreational boating, commercial vessels, overhead aircraft and ambient natural sounds such as wind, waves, and wildlife.

Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise sources or levels due to the project. Noise-sensitive receptors in the project area include residential communities, resort properties, beach recreational use and wildlife.

Environmental Consequences

Instances of increased noise are expected during the construction phase associated with the restoration project. The proposed project would generate construction noise associated with equipment during repair of the existing dock. Construction equipment noise is known to disturb fish, marine mammals and nesting shorebirds (discussed below). Construction noise would also create a potential nuisance to visitors and residents in areas adjacent to project construction activities. Construction noise would be temporary and limited to daytime hours, and the construction period is not anticipated to last more than one year. Because construction noise would be temporary, negative impacts to the human environment during construction activities would be short-term and minor, as they would likely attract attention but would not result in visitors changing their activities.

After completion of the project, noise sources would be expected to include the existing sources described above, and noise levels would return to pre-project conditions. There exists potential for increased boat and automobile traffic resulting from improvements to the boat ramp, which would result in a slight increase in noise levels in the vicinity. Overall, long-term noise impacts from boating and other recreational activities would remain minor. Likewise, noise impacts from commercial vessels, highway traffic, and ambient natural sounds would be minor.

12.37.5.3 *Biological Environment*

12.37.5.3.1 *Living Coastal and Marine Resources*

Wildlife

Affected Resources

Terrestrial vegetation and wildlife habitat at the project site is of limited quality and quantity. As a result of past development and shoreline armoring, there is little vegetation suitable for wildlife habitat present on the upland portions of the site. The site is developed with infrastructure such as buildings, paved and graveled surfaces and boat ramp. These areas are devoid of vegetation and largely impervious. The remainder of the site consists of a few scattered trees and patches of ruderal grass/forb which provides little to no wildlife habitat function.

The in-water habitat adjacent to the site is open water habitat of East Bay, St. Andrews Bay. Shoreline habitat in the immediate vicinity is undeveloped, with beaches extending into a shallow, sandy bottom on the south and east sides of the peninsula near the ramp. The water is brackish. Seagrass is present along the south and eastern sides of the peninsula. A site-specific benthic vegetation survey has not been completed for this project. The Seagrass Integrated Mapping and Monitoring Report No. 1 (FWC, 2011) indicates that seagrass is present in the project area. However specific percentage coverage estimates are not provided. The boat ramp is located just beyond the eastern edge of where sea grass is present. The proposed project work includes repairs to existing structures and the footprint of the developed area is not expected to change. The project site is situated on St. Andrews Bay a shallow estuarine/marine habitats. While nearly 20,000 acres of seagrasses extend through St. Andrews Bay and St. Josephs Bay to the southeast, the most extensive and diverse seagrass habitat in the Florida Panhandle (NFWMD n.d.), no seagrasses exist within the footprint of the proposed project site.

Estuaries are extremely diverse and complex systems and provide spawning, nursery, and forage grounds for many species of fish and invertebrates. Within St. Andrews Bay Fish species within St. Andrews Bay resident fish species include species such as bay anchovy, code goby, sheepshead minnow, silversides, and silver perch (NOAA, 1997). Other transient species include Atlantic croaker, blue runner, bluefish, Gulf flounder, Gulf Menhaden, pinfish, red drum, Spanish mackerel, spotted seatrout, striped mullet (FDNR 1991; NOAA 1997). Some of the invertebrates found within the bay include bay scallop, bay squid, blue crab, brown shrimp, eastern oyster, grass shrimp, and pink shrimp, as well as various species of marine worms and amphipods etc. (FDNR 1991; NOAA 1997). Within the bay “hard” habitats such as piers, docks, seawalls, and rock jetties also contain tropical species such as cocoa damselfishes, angelfishes, parrotfishes, spadefishes, and butterfly fishes. Wrasses, groupers, and snappers are also found along these hard substrates (FDNR 1991).

In and around St. Andrews Bay a large number of bird species occur. Many are migratory and are protected by the Migratory Bird Treaty Act (MBTA). Species that may occur in the vicinity of the project include species of herons, egrets, gulls, and terns. The project area does not provide habitat for Piping plover or red knot.

Environmental Consequences

As noted above, there is no seagrass located within the footprint of the proposed projects, so there would be no direct impacts. Given that no seagrass was identified the proposed project would have no impact on seagrass.

During construction there could be local, short-term minor adverse impacts on both fish and macroinvertebrate species, including shellfish, in the vicinity of the project site. Fish species could be temporarily displaced from habitat in the area of construction due to noise and vibration impacts. Feeding success could also be impacted through increased turbidity; however, most species are highly mobile and would move out of the area to neighboring waters where feeding would be less problematic. Some mortality of sedentary and less mobile species and life stages could occur. However, given the small aerial extent of the impacted area compared to the available habitat within St. Andrews Bay, the overall impact on species would be minor.

Additionally, once construction was complete, fish and invertebrates species would be expected to readily recolonize the area. Some beneficial impacts to species would also occur. Piers and pilings provide a hard substrate habitat that otherwise would not exist in the area. As noted under the affected environment, such hard substrates provide habitat for species such as damselfishes, angelfishes, parrotfishes, spadefishes, and butterfly fishes. Wrasses, groupers, and snappers can be found among this type of habitat as well (SAFMC 2010). As part of the project, information would be made available at the entrance to the pier on best practices on catch and release and other fishing practices (e.g., placing cut line and hooks for disposal in trash bins) designed to limit potential adverse impacts to fish and other marine species. Trash receptacles would also be placed on the pier to help keep the fishing pier to help anglers comply with the recommendations as well as keep other trash out of the water that could otherwise cause impacts on species.

Although bird species that use the waters around the project site for foraging or use the area itself for loafing are likely habituated to human activity, it is likely that they would experience some short-term minor impacts from the increased human activity and the noise from construction activities. However, there is ample suitable habitat in surrounding areas for the birds to use, and impacts would only occur during the construction period. Nesting is not known at the project site for migratory birds, however, preconstruction nesting surveys would be conducted and if evidence of nesting is found, appropriate conservation measures would be taken. Therefore, impacts would be short-term and minor.

Protected Species

Affected Resources

Protected species and their habitats include ESA-listed species and designated critical habitats, which are regulated by either the USFWS or the NMFS. Protected species also include marine mammals protected under the Marine Mammal Protection Act, essential fish habitat (EFH) protected under the Magnuson-Stevens Fishery Conservation and Management Act, migratory birds protected under the Migratory Bird Treaty Act (MBTA) and bald eagles protected under the Bald and Golden Eagle Protection Act (BGEPA).

The Trustees have reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA for species managed by USFWS. For this, the Trustees first reviewed the species list for Bay County, Florida¹⁸. Table 12-15 presents a summary of these potentially affected species/critical habitats and the nature of the potential impact that could result from project implementation.

Table 12-15. Potential Impacts to Species/Critical Habitats managed by USFWS

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Green turtle, Hawksbill turtle, Kemp's ridley turtle; Leatherback turtle, Loggerhead turtle	<p>No nesting habitat is present in any of the project areas; therefore no impacts from construction are anticipated. Sea turtles may nest in areas that boaters may access from these locations; therefore, visitors could disrupt nesting or hatching. The Trustees expect the conservation measures, including educational tools, will minimize impacts to sea turtles and their terrestrial habitats to an insignificant and discountable level.</p> <p>The main risk to sea turtles during execution of this project would come from boat collisions during in-water construction activity which could result in harm or mortality. Consultation with NMFS has been initiated to address this risk as the agency that has jurisdiction to review impacts to sea turtles in the estuarine and marine environments.</p>
West Indian manatee	<p>Bay county is not part of the 36 Florida counties that are identified as being counties where manatees regularly occur in coastal and inland waters (U.S. Department of the Interior, 2011). However, manatees could be present in the action areas.</p> <p>The main risk to manatees during execution of this project would come from noise during construction and boat collisions during use of ramps which could result in harm or mortality. The Trustees expect conservation measures and educational tools discussed below to minimize impacts to manatees (including those from noise) to an insignificant and discountable level.</p>
Piping plover and red knot Piping plover critical habitat	<p>The main risk to piping plovers and red knot is from human disturbance while resting and foraging in habitats adjacent to marine work areas and from human disturbance if boaters choose to visit nearby islands. The proposed project could result in short term increases in noise which could startle individuals and direct disturbance. The proposed project will not result in any changes to shoreline habitats where either species is likely to forage or rest. Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office.</p> <p>Piping plover critical habitat is not designated in the project area but is nearby (where visitors may access it via these ramps) on Shell Island. The primary constituent elements (PCEs) of wintering piping plover critical habitat include:</p> <ul style="list-style-type: none"> 5) Intertidal flats with sand or mud flats (or both) with no or sparse emergent vegetation. 6) Adjacent unvegetated or sparsely vegetated sand, mud, or algal flats above high tide are also important, especially for roosting piping plovers. Such sites may have debris, detritus, or microtopographic relief (less than 50 cm above substrate surface) offering refuge from high winds and cold weather. 7) Important components of the beach/dune ecosystem include surf-cast algae, sparsely vegetated back beach and salterns, spits, and washover areas. 8) Washover areas are broad, unvegetated zones, with little or no topographic relief, that are formed and maintained by the action of hurricanes, storm surge, or other

¹⁸ The U.S. Fish and Wildlife, Panama City office website (<http://www.fws.gov/panamacity/specieslist.html>) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

- Kemp's Ridley Sea Turtle, *Lepidochelys kempii*, Endangered

Additional information for some of these species is provided below.

Sea Turtles and Marine Mammals

There are five species of endangered or threatened sea turtles that may occur or have the potential to occur in the project area. These include green turtle, hawksbill turtle, Kemp's ridley turtle, leatherback turtle, and loggerhead turtle. Sea turtles forage in the waters of the coastal Florida panhandle region and have the potential to occur in the waters where in-water work is proposed. The project site contains potentially suitable sea turtle nesting habitat along the sandy beach, but the site is on the bay side where nesting is uncommon.

Twenty-two marine mammals are native to the Gulf of Mexico: 21 pelagic species of whales and dolphins, and the West Indian manatee (see Chapter 3). Of these species, the endangered West Indian manatee has the potential to occur in the project area waters. Manatees typically seek out shallow seagrass areas as preferred feeding habitat. Additionally, bottlenose dolphin (*Tursiops truncatus*) populations are known to migrate into bays, estuaries, and river mouths and could be located in the proposed project area (NMFS 2013a). Bottlenose dolphins have been observed entering and leaving nearshore coastal waters (NMFS 2012).

Smalltooth Sawfish (*Pristis pectinata*)

Smalltooth sawfish (*Pristis pectinata*) do not typically use northern Gulf of Mexico waters (NMFS 2013b).

Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)

Gulf sturgeon are restricted to the Gulf of Mexico and its drainages, occurring primarily from the Pearl River in Louisiana to the Suwannee River, in Florida (NMFS 2009). Adult fish reside in rivers for 8 to 9 months each year and in estuarine or Gulf of Mexico waters during the 3 to 4 cooler months of each year (NMFS 2009). Important marine habitats include seagrass beds with sand and mud substrates (Mason and Clugston 1993). This project is not within Gulf sturgeon critical habitat.

Migratory Birds and Bald Eagles

The Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711) decreed that all migratory birds and their parts (including eggs, nests, and feathers) were fully protected. The migratory bird species protected by the Act are listed in 50 CFR 10.13. More than 250 species of birds have been reported as migratory or permanent residents along the Florida panhandle, several of which breed there as well. These birds can be grouped generally as (1) species that occur year-round, both nesting and overwintering, (2) species that nest during the warm season and overwinter to the south, (3) species that overwinter and nest further north, and (4) species that pass through during spring migrations to more northern nesting sites and/or during fall migrations to overwintering areas. Different populations of the same species sometimes exhibit more than one type of migratory behavior.

Bald eagles are not known to nest within 1 mile of the project site (FDEP, personal communication, September 26, 2013). Three bald eagle nests have been identified within 2.75 miles of the project site, all of which were last known to be active in 2012 (FWC 2013). The bald eagle was delisted by the USFWS and is not listed as threatened or endangered by the FWC. The bald eagle is, however, protected by

state law pursuant to 68A-16, Fla. Admin. Code and by the U.S. government under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Bald eagles feed on fish and other readily available mammalian and avian species and are dependent on large, open expanses of water for foraging habitat. In Florida, conservation measures to protect active nest sites during nesting season must be considered to reduce potential disturbances of certain project activities. If bald eagles are found nesting within 660 feet of a proposed construction area, then activities would need to occur outside of nesting season or coordination with the USFWS would occur to determine if a permit is needed, and Florida's *Bald Eagle Management Plan* guidelines would be followed (FWC 2008).

The proposed project was also reviewed for impacts to bald eagles and migratory birds in accordance with the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-712), respectively. Table 12-16 provides a summary of the different migratory bird groups specifically addressed by this review and summarizes the potential impacts to these groups and associated habitats that could result from the implementation of this project.

Table 12-16. Potential project impacts to different migratory bird groups

SPECIES	BEHAVIOR	SPECIES/HABITAT IMPACTS
Shorebirds	Foraging, feeding, resting, nesting	At the project sites, shorebirds likely forage and rest and could be locally and temporally impacted during construction. Shorebirds nest, forage, feed, and rest on Shell Island. As such, they may be impacted by visitors traveling from the project sites to Shell Island.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Resting, roosting, nesting	Seabirds forage in water and rest/roost in terrestrial habitats at Shell Island. However, the level of project activity could startle resting birds. Because activities will occur during the day roosting should not be impacted.

Considering the nature of the potential project and the potential impacts to migratory bird groups and associated habitats, a number of conservation measures were identified and will be followed to minimize potential impacts. These measures are summarized in Table 12-17.

Table 12-17. Conservation measures to minimize impacts to migratory bird groups

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Shorebirds	In general, the Trustees expect foraging and resting birds would be able to move to another nearby location to continue foraging and resting if disturbed during construction. Shorebirds are not expected to be nesting in the area of construction but use nearby areas that could be visited by people using the ramps. Educational signage will be posted at each ramp and pier to prevent impacts to migratory birds at Shell Island and other locations. Signs will be developed in coordination with FWC and the Panama City Ecological Services Field Office to detail conservation measures to protect shorebirds in nearby habitats.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. All disturbances will be localized and temporary. The general behavior of these birds is to mediate their own exposure to human activity when given the opportunity, which they will have. Roosting should not be impacted because the project will occur during daylight hours only. Nesting should not be impacted because the project will not occur near nesting habitats. Educational signage will be posted at each ramp and pier. Signs will be developed in coordination with FWC and the Panama City Ecological Services Field Office to detail conservation measures to protect seabirds while visitors may be fishing. Protective measures will also be implemented in the design phase and include the use of pointy, white, piling caps and containers for waste fishing gear.

Essential Fish Habitat

EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seeks to minimize adverse impacts on habitat caused by fishing and non-fishing activities. The NMFS has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column. The EFH within the project area include emergent wetlands, mud substrate, and estuarine water columns for species of fish, such as red drum, brown shrimp, pink shrimp, and white shrimp. There are no marine components of EFH in the vicinity of the project site.

Table 12-18 provides a list of the species that NMFS manages under the federally Implemented Fishery Management Plan in the vicinity of the City of Parker, Earl Gilbert Dock and Boat Ramp site and St. Andrew's Bay.

Table 12-18. Federally managed fisheries with designated Essential Fish Habitat (EFH) in the proposed project area.

EFH CATEGORY	SPECIES
Coastal Migratory Pelagics of the Gulf of Mexico AND South Atlantic	
	Cobia
	King Mackerel
	Spanish Mackerel
Gulf of Mexico Red Drum	
	Red Drum
Gulf of Mexico Shrimp	
	Brown Shrimp

EFH CATEGORY	SPECIES
	Pink Shrimp
	White Shrimp
Reef Fish Resources of the Gulf of Mexico	
	Almaco Jack
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper
	Blueline Tilefish
	Cubera Snapper
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper
	Red Snapper
	Scamp
	Silk Snapper
	Snowy Grouper
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper

Environmental Consequences

Section 7 Consultation

The USFWS reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA. On March 24, 2014, the review of potential impacts to species managed by USFWS was completed (McClain, 2014). The USFWS concurred with the Trustees' determination that the proposed project may affect, but is not likely to adversely affect, five species of sea turtles in terrestrial habitats (green, hawksbill, Kemp's ridley, leatherback, and loggerhead), Choctawhatchee beach mouse, West Indian manatee, piping plover, and red knot (if listed). The USFWS also concurred with the Trustees' determination that the project will not adversely modify or destroy critical habitat for the Choctawhatchee beach mouse or piping plover.

Consultation of potential impacts on protected species managed by NMFS from this project was initiated on February 19, 2014. The Trustees' review of the potential impacts of the project for protected species managed by NMFS determined the proposed action "may affect, but is not likely to adversely affect" the following species and associated critical habitats in the project implementation area:

- Gulf Sturgeon - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Smalltooth Sawfish – The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Green Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Loggerhead Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Hawksbill Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Leatherback Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Kemp's Ridley Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.

Concurrence from NMFS with the Trustees' conclusions for these species and associated critical habitats is still pending.

The Trustees also evaluated the potential for take of Marine Mammals under the MMPA and due to these species' mobility and the implementation of NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006), *Standard Manatee Conditions for In-Water Work* (USFWS 2011), and USFWS recommended conservation measures for listed species and other trust resources, take of marine mammals under the MMPA is not anticipated.

Migratory Birds and Bald Eagle:

There are no bald eagle nests in proximity to the project site and there is no suitable nesting habitat at the site. Therefore, there would be no impacts on bald eagles. At the same time, implementation of the conservation measures previously identified in the review of potential impacts to migratory birds will prevent take of the identified migratory bird groups.

Essential Fish Habitat

The proposed work in the EFH area reflects maintenance of the existing structures (improvements and repairs to the existing boat ramp and dock). As a result, disturbance to species will be limited in their spatial extent, minor in scope, and brief in duration. Construction activities will be conducted at the site of existing structures and may have a minor, short term impact on habitat. During construction, all appropriate BMPs will be followed to minimize the potential impacts of construction activities on EFH and species in the area. During construction, adjacent areas with equivalent or better habitat will be available and undisturbed and organisms could move away from disturbed areas. Therefore, the project is not likely to adversely affect EFH.

On April 24, 2014 NMFS completed its evaluation of potential EFH impacts and concluded that the project construction is not likely to adversely affect EFH and any disturbance to species will be minor and brief.

Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem within the project area, and possibly expand out into adjacent areas after the initial introduction. The invasive species threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 3 described more about the regulations addressing invasive species, pathways, impacts, and prevention. At this time specific invasive species that may be present on the project site or could be introduced through the project have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.37.5.4 Human Uses and Socioeconomics

12.37.5.4.1 Socioeconomics and Environmental Justice

Affected Resources

The City of Parker, similar to the rest of the Florida Panhandle, relies on the coastal waters of the Gulf of Mexico to provide a variety of economic and social benefits to its residents and visitors. The coastal ecosystems in the project area support a wide variety of commercial and recreational activities that contribute significantly to the State's economy. Sport and commercial fisheries are some of the most notable economic highlights, within the region and the State. The marine environments within the area also provide essential transportation links, support a variety of water-dependent facilities, and offer an array of recreational opportunities that attract thousands of visitors to the area each year (FDEP no date).

The 2011 median household income in the City of Parker was \$43,192 (City-data.com 2013). The largest employment sectors in the Panama City-Lynn Haven-Panama City Beach MSA in 2012 were government; leisure and hospitality; and trade, transportation, and utilities (BLS 2012).

Environmental Consequences

No adverse socioeconomic impacts are expected as a result of the proposed project. The proposed project would benefit the local economy during construction through the provision of a small number of construction jobs and associated spending on goods and services by construction workers. Following completion of construction, the project would provide improved facilities to accommodate water-based recreational activities. The dock repairs and parking area work associated with this project is not expected to have any long-term socioeconomic impacts.

12.37.5.4.2 Cultural Resources

Affected Resources

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Environmental Consequences

A complete review of this project under Section 106 of the NHPA is ongoing and would be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within the project area. This project would be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

12.37.5.4.3 Infrastructure

Affected Resources

Infrastructure in the Florida panhandle consists of a network of interconnected structures, support facilities and transportation systems. Physical infrastructure and public services include commonly provided Federal, State, county, parish, municipal, and/or private facilities and utilities that support development and protect public health and safety.

The City of Parker is well served by a network of regional arterials and state highways. The most significant component of the transportation network in the immediate project area is US Highway 98, which closely follows the Gulf coast from the Florida-Alabama state line to St. Marks, Florida and crosses St. Andrews Bay approximately 1000 feet to the northwest of the project site. Oakshore Drive provides access from the project site to Highway 98 and central Parker. The closest public airport to the project site is Northwest Florida Beaches International Airport, located approximately 28 miles northwest of the project site in Panama City.

Water and wastewater services in the project area are provided by the City of Parker. Five private waste haulers are permitted to provide sanitation services. Electric service is provided by Gulf Power Company and gas service is provided by TECO. Cable television and internet are provided by Mediacom, and phone service is provided by AT&T.

Environmental Consequences

During construction of the boat ramp improvements, the proposed project would potentially have minor adverse impacts to infrastructure due to traffic delays and roadway damage associated with

construction vehicle traffic; utility service interruptions and potential accidental damage to utility infrastructure; and closure of the boat ramp to public use. Following completion of construction, the proposed improvements could lead to an increase in visitor use; however, visitor use is not expected to increase to the point where associated wear on infrastructure would lead to adverse impacts. Overall, the proposed project is expected to have long-term beneficial impacts on infrastructure through the provision of expanded and enhanced boat ramp facilities.

12.37.5.4.4 Land and Marine Management

Affected Resources

Development in the City of Parker is guided by the City of Parker Comprehensive Plan and regulated according to the City of Parker Land Development Code (City of Parker 2010; 2012). Zoning and land development decisions are subject to review and approval by the City Council as advised by the Planning Commission. The project site is situated on land owned by the City of Parker and zoned for Recreational use (City of Parker 2012). The proposed project is a permitted use in Recreational districts (City of Parker 2012). Land uses surrounding the site include single-family and multi-family residential uses and vacant land.

Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS (Federal Trustees 2013). The State of Florida responded and concurred with the federal determination of consistency at this point in the early restoration planning process (Milligan 2014).

Environmental Consequences

No changes would occur to the current use at the Earl Gilbert boat ramp, or to uses on adjacent and nearby properties. Land ownership would remain the same, and the site would continue to be managed as a public boat ramp. The proposed project would be consistent with the City of Parker Land Development Code, since it is a permitted use in Recreational districts.

12.37.5.4.5 Aesthetics and Visual Resources

Affected Resources

The City of Parker is situated on St. Andrews Bay, a 69,000 acre estuary that outlets to the Gulf of Mexico approximately 7.8 miles southwest of the project site. The landscape in the region is characterized by beaches, tidal flats, dunes, marshes and coastal waterways. Development in the City of Parker is characteristic of urban and suburban communities in the Panama City metropolitan area, and consists of low-rise commercial, hotel and single-family residential buildings. Land surrounding the project site is largely vacant and sparsely vegetated with grass and palm trees, with unobstructed views of St. Andrews Bay.

Environmental Consequences

Temporary impacts to aesthetics and visual resources would result from implementation of the proposed boat ramp and dock improvements. Construction equipment would be temporarily visible to

visitors and recreational users. These construction-related impacts to visual resources would be adverse but minor, since the amount of construction equipment required to complete the project would be limited, and construction activities and equipment would be visible to residents and visitors for a maximum of two years. The proposed project would take place at the site of an existing boat ramp and would not change the overall visual appearance of the site or surrounding area; therefore, no long-term impacts to aesthetics and visual resources are anticipated.

12.37.5.4.6 Tourism and Recreational Use

The City of Parker is located in the Panama City MSA, which is a popular tourist destination that receives approximately six million visitors annually (Panama City Beach 2013). Locals and tourists spend much time swimming, beachcombing, boating, fishing, diving, kayaking, surfing, and engaging in other active and passive activities near the beach. Beach usage peaks during the winter and spring, and subsides during the summer.

Environmental Consequences

During the construction period, tourism and recreational use would be negatively impacted by noise and visual disturbances associated with the use of construction equipment. Public access to the boat ramp would be prohibited during construction activities. While these temporary inconveniences would result in minor negative impacts on tourism and recreational use, over the long term the project would result in beneficial impacts to tourism and recreational use. Opportunities for ocean-based recreational activity would be enhanced as a result of improved facilities. The project would not be expected to result in a notable increase in the number of visitors, due to its limited scope; however, the project would contribute to an improved experience for local residents using the boat ramp. To the extent that visitor use increases as a result of the proposed project, it would have beneficial impacts to tourism as well. Overall, adverse impacts to tourism and recreational use would be short term and minor. Over the long term, the project would result in beneficial impacts to tourism and recreational uses.

12.37.5.4.7 Public Health and Safety and Shoreline Protection

Affected Resources

The management of hazardous materials is regulated under various federal and state environmental and transportation laws and regulations, including the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Emergency Planning and Community Right-to-Know Act, and the Hazardous Materials Transportation Act. The purpose of the regulatory requirements set forth under these laws is to ensure the protection of human health and the environment through proper management (identification, use, storage, treatment, transport, and disposal) of these materials. Some of these laws provide for the investigation and cleanup of sites that have already been contaminated by releases of hazardous materials, wastes, or substances.

The project site lies within an existing park with adjacent residential areas. A review of USEPA EnviroMapper revealed that there are no sources of contamination or hazardous materials located on or immediately adjacent to the Earl Gilbert boat ramp (USEPA 2013c). No sources of hazardous, toxic and radioactive waste (HTRW) are otherwise known to exist within the project area. Boats launching and landing at the ramp could potentially serve as a source of non-point pollution resulting from inadvertent releases of fuel or oil.

Environmental Consequences

Project construction would utilize mechanical equipment that uses oil, lubricants and fuels. The contractor would be required to take appropriate actions to prevent, minimize, and control the spill of construction related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills. If a release should occur such releases would be contained and cleaned up promptly in accordance with all applicable regulations. As a result, no impacts associated with construction-related hazardous materials would be anticipated.

Because of the nature and location of the project, no impacts to public health and safety or shoreline erosion are anticipated as a result of construction activities. The project and its construction are not anticipated to generate hazardous waste or the need for disposal of hazardous waste. In the event of a fuel or oil spill from construction equipment, all procedures, regulations and laws pertaining to Oil Spill Prevention and Response would be adhered to and the incident would be reported to appropriate agencies. All occupational and marine safety regulations and laws would be followed to ensure safety of all workers and monitors. Therefore, it is anticipated that there would be no impacts to public health and safety from the proposed project.

12.37.6 Summary and Next Steps

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of Parker Earl Gilbert Dock and Boat Ramp Improvements) project would improve the existing Earl Gilbert dock and boat ramp in the City of Parker. The proposed work includes improving the existing dock and expanding the existing parking. The project is consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project would enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

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12.38 Strategically Provided Boat Access along Florida’s Gulf Coast: Project Description E (City of Port St. Joe, Frank Pate Boat Ramp Improvements)

12.38.1 Project Summary

The proposed Strategically Provided Boat Access along Florida’s Gulf Coast (City of Port St. Joe Frank Pate Boat Ramp Improvements) project would improve the existing Frank Pate boat ramp in the City of Port St. Joe. The proposed improvements include constructing an additional boarding dock, boat trailer parking, access drive, staging area, and a fish cleaning station. The total estimated cost of the project is \$806,972.

12.38.2 Background and Project Description

The Trustees propose to improve and enhance the existing Frank Pate boat ramp in the City of Port St. Joe (see Figure 12-7 for general project location). This project builds on an ongoing effort initiated by the FWC through its Florida Boating Improvement Program which, in part, is used to fund applications from local governments in a competitive grant process for boat access improvement projects in remote areas, small towns and cities, and coastal counties (for more information on the program see <http://myfwc.com/boating/grant-programs/fbip/>).

The objective of the FWC City of Port St. Joe Frank Pate Boat Ramp Improvement project is to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The restoration work proposed includes constructing an additional boarding dock, boat trailer parking, access drive, staging area, and a fish cleaning station.

12.38.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public’s access to and enjoyment of the natural resources along Florida’s Panhandle was denied or severely restricted. The proposed Strategically Provided Boat Access along Florida’s Gulf Coast (City of Port St. Joe Frank Pate Boat Ramp Improvements) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project would enhance and/or increase opportunities for the public’s use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Agencies have successfully completed projects of similar scope throughout Florida over many years, including similar types of actions in earlier phases of the Deepwater Horizon Early Restoration. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.38, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.38 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (<http://www.gulfspillrestoration.noaa.gov>) and to the State of Florida (<http://www.deepwaterhorizonflorida.com>). In addition to meeting the criteria for the Framework Agreement and OPA, the Florida FWC Strategic Boat Access: City of Port St. Joe Frank Pate Boat Ramp Improvements project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.38.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving an existing boat ramp. Performance monitoring will evaluate: 1) construction of a boarding dock; 2) the addition of boat trailer parking; 3) the construction of an access drive; 4) the addition of a staging area; and 5) the construction a fish cleaning station. Specific performance criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp is open and available.



Figure 12-7. Location of FWC Strategic Boat Access City of Port St. Joe Frank Pate Boat Ramp Improvements.

Long-term monitoring and maintenance of the improved facilities will be completed by the City of Port St. Joe as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by the City of Port St. Joe.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of Port St. Joe will monitor the recreational use activity at the site. The City of Port St. Joe will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.38.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Strategically Provided Boating Access along Florida's Gulf Coast project, of which this is a component, are \$6,496,680 expressed in present value 2013 dollars to be applied against the monetized

value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.¹⁹

12.38.6 Costs

The total estimated cost to implement this project is \$806,972. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

¹⁹ For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.39 Strategically Provided Boat Access along Florida's Gulf Coast: Environmental Review E (City of Port St. Joe, Frank Pate Boat Ramp Improvements)

Public boat ramps provide local boaters with access to public waterways and many types of secondary water-dependent activities, including fishing, SCUBA diving, water-skiing, and simply cruising local waterways under power or sail. Boating provides not only recreational values but also substantial economic value to local and state economies.

Florida proposes to make several improvements at the existing Frank Pate City Park Boat Ramp. This project builds on an ongoing effort initiated by the Florida Fish and Wildlife Conservation Commission (FWC) through its Florida Boating Improvement Program which, in part, is used to fund applications from local governments in a competitive grant process for boat access improvement projects in remote areas, small towns and cities, and coastal counties. Included in the proposed improvements is the renovation and extension of an existing boarding dock; construction of additional boat trailer parking; and construction of a new staging area and a fish cleaning station. The total estimated cost of the project is \$806,972. This property is located in southern Gulf County, Florida and is owned and managed by the City of Port St. Joe.

The project would provide boaters with enhanced access from Port St. Joe to offshore areas in St. Joseph Bay and the Gulf of Mexico. This project would help address the reduced quality and quantity of recreational activities (e.g., boating and fishing) in Florida attributable to the Deepwater Horizon Oil Spill.

This project satisfies the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of their natural resources along Florida's Panhandle was denied or severely restricted. The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of Port St. Joe Frank Pate Boat Ramp Improvements) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

12.39.1 Introduction and Background

In April 2011, the Natural Resource Trustees (Trustees) and BP Exploration and Production, Inc. (BP) entered into the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement). Under the Framework Agreement, BP agreed to make \$1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is underway. The Framework Agreement is intended to expedite the start of restoration in the Gulf in advance of the completion of the injury assessment process. Early restoration is not intended to, and does not fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement), the Trustees released, after public review of a draft, a Phase I Early Restoration Plan (ERP) in April 2012. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, the National Oceanic and Atmospheric Administration (NOAA) issued a public notice in the Federal Register on behalf of the Trustees announcing the development of additional future Early Restoration projects for a Draft Phase III Early Restoration Plan (ERP). This boat ramp project was submitted as an Early Restoration project on the NOAA website (<http://www.gulfspillrestoration.noaa.gov>) and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and the Oil Pollution Act (OPA), the project meets Florida's criteria that Early Restoration projects occur in the eight-county Florida panhandle area that deployed boom and was impacted by the Spill.

The project site is at a city park and includes a two-lane concrete boat ramp with boarding docks; restrooms; and gravel parking for 15-20 vehicles with trailers. The surrounding area is currently developed, with US Highway 98 running parallel to the shoreline and several other boat launch and dock structures located in the vicinity. The existing concrete boat ramp is approximately 50 feet wide. A small dock runs down the middle of the ramp and is approximately 100 feet long and 10 feet wide. Two docks run along the outside edges of the boat ramp, and each is approximately 100 feet long and 10 feet wide. An approximately 400 square foot platform sits at the end of the shoreline just past the boat ramp. The banks near the boat ramp are armored, and the sides of the boat basin are equipped with fenders and rails. The shoreline adjacent to the boat ramps is armored with revetments, and jetties composed of rip-rap extend for a distance of approximately 600 feet seaward of the boat ramps.

The proposed improvements would include renovating and extending a boat dock, repair of rails and fenders lining the ramps and boat basin; construction of additional parking spaces at an existing parking area, construction of a staging area and construction of a new fish cleaning station. The proposed project would improve boater access and user experience at the facility. It is expected that with the addition of the improved dock, rails and fenders, boater safety would also be improved.

The total estimated cost to implement this project is \$806,972. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

12.39.2 Project Location

The project is located at 5th and Baltzell streets on St. Joseph Bay, Port St. Joe, Gulf County, Florida, in Section 1, Township 8-S, Range 11-W, at Latitude: 29° 81' 10.85" North and Longitude: -85° 30' 52.41" West. The activities are to occur between U.S. Highway 98 and the shoreline. St. Joseph Bay is located in the western Florida Panhandle approximately 75 miles southwest of Tallahassee and has direct access to the Gulf of Mexico (Figure 12-8).



Figure 12-8. Vicinity and project location.

12.39.3 Construction and Installation

The proposed improvements include the renovation and extension of an existing boarding dock; construction of additional boat trailer parking; and construction of a new staging area and an upland fish cleaning station tied to existing wastewater treatment infrastructure.

There is an existing, two-lane boat ramp at the site with the two lanes separated by a boarding dock. A gravel parking lot lies to the southeast of the boat ramp. There is also an informal grass parking area on the north side of the ramp. The proposed project would include making the north parking lot more formal and adding additional parking to the gravel lot of the boat ramp. A fish cleaning station would be located near the existing park restroom facilities so the existing water and sewer lines could be used. A conceptual plan for this work also shows additional elements being pursued as part of the improvements to the park but that are not part of this project.

The current boarding dock separating the two lanes of the boat ramp would be renovated and extended to allow for more temporary mooring areas while boaters are launching and loading at the ramp. Fenders and rub rails located on the north and south sides of the boat basin along the existing sheet pile retaining wall would also be repaired.

As part of the dock expansion, up to 20 pilings could be placed (no pilings need to be removed). These are expected to be 8" diameter pilings that would be placed through a combination of water jetting and mechanical auguring. Development of final plans will incorporate the guidance and requirements set forth in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) should an SAV survey indicate sea grasses are located in the project area. Among other impacts, implementing these guidelines would require pilings for the dock expansion be placed at a minimum of 10 feet apart.

Most work, and all equipment and materials staging, would be completed from the existing disturbed areas near the current boat ramp, although some of the dock construction work would take place from the water. During periods of in-water work the guidelines and conditions within the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006) will be implemented and adhered to. These provisions include stopping operation of any equipment if sea turtles or smalltooth sawfish come within 50 feet of the equipment until the time when animals leave the project area of their own volition.

BMPs for erosion control would also be implemented and maintained at all times during upland construction to prevent siltation and turbid discharges into surface waters. Methods could include but are not limited to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site.

One of the critical elements of the effort to limit impacts associated with the project development will be the consideration of, review for, and ultimate implementation of stormwater management controls for the project. Although each project site will pose its own issues when developing the stormwater and sediment control plans for pre, during, and completion of construction plans there is a standard approach to preparing these designs characterized by the following steps, which are distinguished by their relationship to construction, that will be followed for this project:

1. Development of Pre-construction or existing conditions plans w/erosion and sediment control (E&SC) features. These pre-construction plans will illustrate what sediment control measures will be initially installed and their location in order to minimize impacts to receiving waterways when upland land disturbance activities begin. These plans will be based upon an existing site survey delineating the project boundaries, site topography, topographic features (vegetation, soil types, impervious and pervious areas, water bodies (streams and ponds), wetlands, drainage channels, existing structures, drainage basins, flow patterns and major points where stormwater enters and exits the site. The survey should extend to at least 50 feet beyond the project site and contours should depict intervals of 0.5 to 2.0 feet. The pre-construction plans should also identify phases of construction and areas that will be disturbed along with the overall limits of construction or disturbance. Sensitive areas (e.g., locations of sensitive/protected flora and fauna, wetlands, excessive slopes and unsuitable soils) should also be identified. Taking all the above information from the survey into consideration the designer will designate the locations and describe the structural controls to be installed in order to minimize erosion and control sediment from reaching adjacent receiving waters and wetlands. The most important aspect of the pre-construction drawings is to identify where water flows through the project site and

where critical discharge points are located. The nature and location of best management practices (BMP's) that will then be emplaced and incorporated prior to construction are determined from these drawings. BMP's commonly identified/used include: placing combinations of silt screens, hay bales, fiber logs, and temporary vegetation down gradient of areas to be disturbed. Other sediment and stormwater control options include installing sediment ponds or traps or diversion berms and conveyance channels to redirect runoff and sediment from receiving waters.

2. Development of During Construction grading plans. These plans may be incorporated with the pre-development plans when feasible for a simple site but otherwise will be developed for depicting E&SC measures to be employed during grading operations. As the project progresses through its various phases of construction it may be necessary to adjust the location of structural E&SC measures or to include additional ones. These plans will show areas for stockpiling top soils and other materials and how they are to be contained (silt fencing, berms etc.), equipment storage areas and refueling areas (if allowed) with protective measures to be employed such as containment berms or absorbent material for possible spills. These plans may also include final stormwater control structures such as retention/detention ponds. These plans will also include requirements for inspection and maintenance of the BMP's such as inspections and repair/replacement, if necessary, after every storm event. These plans will point out to the contractor critical containment contours to ensure that optimal treatment of runoff from the disturbed areas is realized and minimal impact occurs to receiving waters.
3. Final Grading or Construction Plans. These plans will show how the site is to look upon completion of construction, final grades, stormwater controls and final stabilization of disturbed lands. These plans will include final landscaping (sod, mulching, plants (native trees and shrubs), ditch or swale lining utilizing sod mats, ditch breaks etc., and slope stabilization. Final grades on all impervious areas such as parking, entry and exit drives will be designed so as to reduce runoff velocity and direct runoff into drainage conveyance systems and finally into treatment ponds dry or wet type depending on groundwater depths where the majority of runoff is treated before being released into the receiving waters. The design capacity of the treatment ponds will be based upon SCS curves for the required design storm event. Release of stormwater from the sites will be at pre-construction rates. Outlet controls BMP's may include rip rap installation where necessary to control erosion at exit points. Most boat ramp installations will also include the installation of trench drains at the top of the ramps to capture runoff from the drive areas and divert it to treatment areas or pass it through a filter "sock". Projects that have sufficient budgets and suitable site conditions may also consider the placement of pervious concrete in lieu of asphalt or concrete driving surfaces. The final grading plans will describe when and where removal of BMP construction sediment control structures (silt fencing, diversion berms etc.) is to be done i.e. establishment of 70% of permanent vegetation. The final part of the stormwater management system is the development of the monitoring or maintenance plan which will describe the frequency of inspection (after every major storm, x's per year etc.) and maintenance (removing sediment from ponds and swales, cleaning or replacing sand filter beds,

replacing sediment “sock” in trench drain) and what actions to take when the system has been reduced in efficiency or has failed.

In addition, while no analysis has been completed to evaluate how the improvements to the Frank Pate boat ramp may affect future use by recreators, the FWC does, on occasion, recommend the installation of seagrass information signs (Caution: Seagrass) in shallow waters around dredged channels or in areas affected by human activities where seagrass habitats are present. FWC's Boating and Waterways unit, part of the Division of Law Enforcement, lacks authority to permit regulatory signs for natural resource protection, but it has the authority to permit informational signs. Generally, seagrass informational signs are installed in waters along a 3' contour adjacent to shallow seagrass beds in order to warn boaters of the potential for running a ground or striking the bottom and damaging seagrass. This is not always recommended for permitted projects, but it is often employed when attempting to prevent damage by boaters along dredged channels and from boating access corridors.

Finally, should any lighting be installed or upgraded the new lighting will be wildlife friendly and comply with the guidance provided in the current edition of the FWC's Lighting Technical Manual.

It is expected that the in-water work associated with this project would last no more than 3 months.

12.39.4 Operations and Maintenance

Long-term operations and maintenance of the improved facilities would be completed by The City of Port St. Joe as part of their regular public facilities maintenance activities. These activities would include insuring that the boat ramp, restroom facilities, and parking lot are in working order and defective areas would be fixed as appropriate. It is anticipated that regular operation and maintenance may include pavement repairs, replacement of boards on boarding docks, and repairs to restroom plumbing and fixtures.

Monitoring would be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. Performance monitoring would evaluate the construction of the boat ramp. Specific parameters include: completion of construction as designed and permitted. During the one year construction performance monitoring period, the Florida Trustees' project manager would go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of Port St. Joe would monitor the human use activity at the site. City of Port St. Joe personnel would visit the site twice a year to count the number of users at the boat ramp. The visitation numbers would then be provided to the Florida Department of Environmental Protection.

12.39.5 Affected Environment and Environmental Consequences

Under the National Environmental Policy Act, federal agencies must consider environmental effects of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.39.5.1 *No Action*

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.39.5.2 *Physical Environment*

12.39.5.2.1 *Geology and Substrates*

Affected Resources

The project lies in the Gulf coastal lowlands physiographic province (Allen and Main 2005). The landscape of the Gulf coastal lowlands is comprised of a relatively flat terrain, ranging in elevation from 0 to about 50 feet above mean sea level. Soils in the coastal panhandle of Florida consist predominately of medium to fine grain sands and silts associated with recent Pleistocene formations. It can be assumed that the soils at the project site are similar.

Environmental Consequences

Mechanized equipment and hand tools would be used to complete the renovation and extension of an existing boarding dock; construction of additional boat trailer parking; and construction of a new staging area and fish cleaning station. Some excavation of soils would occur; however, adverse impacts to geology and substrates would be minor. Disturbance would be detectable, but would be short term, small, and localized. There would be no long-term changes to local geologic features; however, paving of the parking lot would increase the area of impervious surface at the site in the long term and could result in minor, localized changes to soil characteristics. It is assumed that ongoing use of the site as a parking lot has already compacted soils to the point where infiltration is slight, and paving is not expected to create a noticeable change in runoff conditions. Erosion and/or compaction may occur in localized areas; appropriate erosion control and mitigation measures would be implemented prior to and during construction. Overall, the project's impacts related to soil compaction and erosion during construction would be minor and in the long term, the project would not be expected to adversely impact geology, soils, or substrates.

12.39.5.3 *Hydrology and Water Quality*

Affected Resources

Northwest Florida has seven major watersheds, all of which have been identified as priorities under the Surface Water Management and Improvement (SWIM) program. Water quality protection is the underlying goal of SWIM, along with the preservation and restoration of natural systems and associated public uses and benefits (Northwest Florida Water Management District [NWFWMD] 2011).

The proposed project is on St. Joseph Bay. St. Joseph Bay is separated from the Gulf of Mexico by St. Joseph Peninsula and is considered the only body of water in the eastern Gulf that is not influenced by freshwater inflows (FDEP 2008). The bay has a surface area of 42,826 acres and connects to the Intracoastal Waterway by the Gulf County Canal (Thorpe 2000).

St. Joseph Bay is part of the St. Andrews Bay watershed system, which includes St. Andrews, West, East, and North Bays; St. Joseph Bay; and Deer Point Reservoir, as well as the respective surface water basins of each of these waterbodies. The waterways are primarily used for transportation, seafood harvesting, recreation, and waste disposal. Broad issues for the St. Andrews Bay system include degradation through point and nonpoint pollution sources, habitat quality that is threatened by and degraded through sedimentation and deposition, and public education and awareness (Thorpe 2000).

Floodplains

Based on Federal Emergency Management Agency (FEMA) flood insurance rate maps, the proposed project appears to be within Zone VE, or an area subject to inundation by the 1 percent annual chance flood event with additional hazards due to storm-induced velocity wave action (FEMA 2002).

Wetlands

There are wetlands within the vicinity of the project site. However, no wetlands were identified within the project footprint. The proposed boat dock is over open water.

Environmental Consequences

With required mitigation in place, impacts to water quality are expected to be minimal. All permit conditions requiring mitigation measures for siltation, erosion, turbidity and release of chemicals would be strictly adhered to. During construction, Best Management Practices and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts. The Florida Department of Environmental Protection (FDEP) permit conditions require erosion and turbidity mitigation measures. These include:

- Install floating turbidity barriers
- Install erosion control measures along the perimeter of all work areas
- Stabilize all filled areas with sod, mats, barriers or a combination
- If turbidity thresholds are exceeded the project must stop, stabilize the soils, modify the work procedures, and notify the FDEP.

The FDEP permits also constitute a Certification of Compliance with State Water Quality Standards under Section 401 of the Clean Water Act, which means that the project would comply with state water quality standards and other aquatic resource protection requirements.

After construction, increased boat traffic at the refurbished boat dock could result in minimal impacts to surface water quality. Boat wakes created by additional boat traffic that could increase shoreline erosion would be controlled through no-wake or speed zones to mitigate shoreline erosion.

Impacts from chemicals that could potentially be released from sources such as construction equipment and boats are expected to be minor. Required spill containment measures would be implemented for applicable construction activities. FDEP permits require spill containment protection and mitigation measures such as:

- No boat repair or fueling facilities over the water,
- Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting

Best Management Practices along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts associated with construction activities. Best Management Practices for erosion control would be implemented and maintained at all times during construction to prevent siltation and turbid discharges into waters of the state. Silt and sedimentation control measures would be installed and properly maintained to protect water quality resources. Given that there would be no substantial change in uses at the project site following implementation of the proposed enhancement activities, it is anticipated that there would be no long-term negative impacts to water resources. The implementation of the proposed project would therefore result in short-term minor negative impacts on water resources. This project would not impact groundwater. There would be no adverse impacts to hydrology or water quality. Overall, potential impacts to water resources are expected to be minor, temporary and localized in nature.

The proposed discharge of dredged or fill material into waters of the United States, including wetlands, or work affecting navigable waters associated with this project is currently being coordinated with the U.S. Army Corps of Engineers (USACE) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA). Coordination with the USACE and final authorization pursuant to CWA/RHA will be completed prior to project implementation.

12.39.5.3.1 Air Quality and Greenhouse Gas Emissions

Affected Resources

The Clean Air Act (CAA) requires the State of Florida to adopt ambient air quality standards to protect the public from potentially harmful amounts of pollutants. Six common air pollutants (also known as "criteria pollutants") are regulated by the U.S. Environmental Protection Agency (USEPA) and the states under the CAA. They are particle pollution (often referred to as particulate matter), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. The Florida Department of Environmental Protection (FDEP) has designated areas meeting the state's ambient air quality standards by their monitoring and modeling program efforts, (i.e., attainment areas). Florida has no nonattainment areas within the panhandle region.

Currently, Port St. Joe is classified by USEPA as an attainment area in accordance with the National Ambient Air Quality Standards (NAAQS). The City of Port St. Joe is not located within a USEPA Class 1 air quality area; however, St. Marks National Wildlife Refuge, located approximately 65 miles to the northeast, is designated as a Class I air quality area (USEPA 2013a). Class I air quality areas are afforded special protection under the Clean Air Act. Any proposed new or modified sources of air pollution locating within approximately 200 miles (300 km) of a Class I air quality area are asked to consult with the Federal Land Manager to determine whether emission impact modeling to the Class I area should be conducted and submitted to the Federal Land Manager for review (USFWS 2013).

Beginning in 2011, the CAA also regulates emissions of greenhouse gases (GHG) (USEPA 2013b). The USEPA's GHG Reporting Rule establishes mandatory GHG reporting requirements for sources that emit 25,000 metric tons or more of carbon dioxide equivalent (CO₂e) per year (USEPA 2013b).

Environmental Consequences

Project implementation would require the use of heavy equipment for up to 8 hours per day over a 2-year construction period. This would temporarily affect air quality and elevate GHG levels in the project vicinity due to emissions and increased dust from operation of construction vehicles and equipment. Any air quality impacts that would occur would be localized, limited to the construction phase of the project, and limited by the size of the project. Therefore, impacts to air quality would be negative but minor and short-term. The project would have no long term impacts on air quality.

Engine exhaust from grading equipment, pile driver, and trucks would contribute to an increase in GHG emissions. Table 12-19 describes the likely GHG emissions scenario for the implementation of this project.

Based on the assumptions described in Table 12-19 below, GHG emissions would not exceed 25,000 metric tons per year. Given the projected construction-phase GHG emissions, along with the small scale and short duration of the project, predicted impacts from GHG emissions would be short-term and minor.

12.39.5.3.2 Noise

Affected Resources

Noise can be defined as unwanted sounds and sound levels, and its impacts are interpreted in relationship to impacts on nearby persons and wildlife. The Noise Control Act of 1972 (42 U.S.C. 4901 to 4918) was enacted to establish noise control standards and to regulate noise emissions from commercial products such as transportation and construction equipment. The standard measurement unit of noise is the decibel (dB), which represents the acoustical energy present. Noise levels are measured in A-weighted decibels (dBA), a logarithmic scale which approaches the sensitivity of the human ear across the frequency spectrum. A 3-dB increase is equivalent to doubling the sound pressure level, but is barely perceptible to the human ear. Table 12-20 shows typical noise levels for common sources expressed in dBA. Noise exposure depends on how much time an individual spends in different locations.

Noise levels in the project area vary depending on the season, time of day, number and types of noise sources, and distance from noise sources. Existing sources of noise in the project area include motor vehicle traffic on State Highway 20, recreational boating, commercial vessels, overhead aircraft and ambient natural sounds such as wind, waves, and wildlife.

Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise sources or levels due to the project. Noise-sensitive receptors in the project area include residential communities, resort properties, beach recreational use and wildlife.

Table 12-19. Greenhouse gas impacts of the proposed project.

CONSTRUCTION EQUIPMENT	NO. OF HOURS OPERATED ²⁰	CO2 (METRIC TONS) ²¹	CH4 (CO2E) (METRIC TONS) ²²	NOX (CO2E) (METRIC TONS)	TOTAL CO2E (METRIC TONS)
Pile Driver ²³	1920	81.6	0.048	0.48	82.13
Grader (2)	1920	81.6	0.048	0.48	82.13
Tractor Trailer	1920	81.6	0.048	0.48	82.13
TOTAL					246.39

Table 12-20. Common noise levels.

NOISE SOURCE OR EFFECT	SOUND LEVEL (DBA)
Rock-and-roll band	110
Truck at 50 feet	80
Gas lawnmower at 100 feet	70
Normal conversation indoors	60
Moderate rainfall on foliage	50
Refrigerator	40
Bedroom at night	25

Source: Adapted from BPA 1986, 1996

²⁰ Emissions assumptions for all equipment based on 240 8-hour days of operation per piece of equipment over a 12-month construction period.

²¹ CO₂ emissions assumptions for diesel and gasoline engines based on USEPA 2009.

²² CH₄ and NO_x emissions assumptions and CO₂e calculations based on USEPA 2011.

²³ Construction equipment emission factors based on USEPA NONROAD emission factors for 250hp pieces of equipment. Data was accessed through the California Environmental Quality Act Roadway Construction Emissions Model.

Environmental Consequences

Instances of increased noise are expected during the construction phase associated with the restoration project. The proposed project would generate construction noise associated with equipment during the renovation and extension of an existing boarding dock; construction of additional boat trailer parking; and construction of a new staging area and fish cleaning station. Construction equipment noise is known to disturb fish, marine mammals and nesting shorebirds (discussed below). Construction noise would also create a potential nuisance to visitors and residents in areas adjacent to project construction activities. Construction noise would be temporary and limited to daytime hours, and the construction period is not anticipated to last more than one year. Because construction noise would be temporary, negative impacts to the human environment during construction activities would be short-term and minor, as they would likely attract attention but would not result in visitors changing their activities.

After completion of the project, noise sources would be expected to include the existing sources described above, and noise levels would return to pre-project conditions. There exists potential for increased boat and automobile traffic resulting from improvements to the boat ramp and related facilities, which would result in a slight increase in noise levels in the vicinity. Overall, long-term noise impacts from boating and other recreational activities would remain minor. Likewise, noise impacts from commercial vessels, highway traffic, and ambient natural sounds would be minor.

12.39.5.4 Biological Environment

12.39.5.4.1 Living Coastal and Marine Resources

General Habitat

Affected Resources

The project is located in an urban area. The existing boat ramp and dock is adjacent to a paved street and parking lot and is surrounded by ruderal grasses. The upland area surrounding the boat ramp is a developed urban area. Terrestrial vegetation and wildlife habitat at the project site is of limited quality and quantity. As a result of past development and shoreline armoring, there is very little vegetation or wildlife habitat present on the upland portions of the site. Most of the project site has been graveled and an existing boat ramp is in place. The unvegetated parking lot and boat ramp habitat type comprises most of the project site, and consists of unvegetated areas that are completely developed with infrastructure such as buildings, paved and graveled surfaces and boat ramp. These areas are devoid, or nearly devoid, of vegetation and largely impervious. They provide little to no wildlife habitat function.

The shoreline area is sandy beach with vegetation, and transitions to shallow salt-water habitat with sandy-bottom. The boat ramp is located in a small inlet, surrounded by armored shoreline. The extent of riparian habitat within the project site is very limited the bank is armored with concrete seawall and riprap and the upland extent of functional riparian habitat is limited by existing impervious surfaces. The riparian area within the proposed project site is mostly devoid of vegetation, with the exception of a few scattered trees and patches of ruderal grass/forb habitat within the riparian buffer zone. Impervious surfaces include existing roadways, compacted soil, buildings, paved and graveled surfaces and boat ramp. The bank is armored with riprap, and above the riprap, there is a narrow band of ruderal grass/forb habitat.

Seagrass is present in the general area of the boat ramp, across a small peninsula from the channel that boats would use. A site-specific benthic vegetation survey has not been completed. However, seagrass is present in the vicinity of the project area, specific percentage coverage estimates have not been determined. The proposed project work includes repairs to the existing boarding dock and a small expansion. These construction activities will not occur in the area where seagrass is present.

No listed plant species have the potential to occur within the project site.

The project site is surrounded by an urban or suburban environments and based on the types of habitat present, it is expected that ruderal species such as raccoon, opossum, gray squirrel (*Sciurus carolinensis*), and other non-game mammals would be present in upland areas within the vicinity of each project.

Motile Invertebrates and Fishes

The St. Josephs Bay supports numerous fish and marine species and provides habitat for several crustacean species, which include brown shrimp, pink shrimp, white shrimp, marsh grass shrimp, and common blue crab. Important commercial and recreational fishes, which feed on these invertebrates or on aquatic primary producers, would include: striped mullet, spotted seatrout, sand seatrout, red drum, black drum, silver perch, Atlantic croaker, southern king, southern flounder, gulf flounder, gulf menhaden, striped mullet, Florida pompano, and Spanish mackerel.

Environmental Consequences

Habitat

The proposed project would be located at the site of an existing boat ramp and parking lot. The existing shoreline is a mixture of concrete seawall, riprap and the majority of the remaining upland area is developed providing little habitat. Due to the lack of vegetation present at the site, impacts on native vegetation would not be expected. The construction activity would result in short term temporary minor impacts to common wildlife, these species live in an urban environmental where ambient noise levels are high. Habitat conditions after construction would be similar to the existing conditions, and no long-term impacts to common wildlife would be anticipated.

The upland areas within the project site do not contain critical habitat for beach mice or piping plovers. Construction would cause only minimal alteration and/or damage to habitats. No submerged aquatic vegetation, which is habitat for species such as manatees, sea turtles, fish and invertebrates, is known to occur at the site. Therefore, the project would result in minor impacts to fish and wildlife resources.

The project would require FDEP and USACE permits. Both the FDEP Wetland and Environmental Resource Field permits and USACE Permit require Best Management Practices (BMPs) for species protection and turbidity and erosion control to be implemented. This would help minimize the damage and loss of habitats. All construction activities would be done in compliance with FDEP and USACE permit conditions.

Protected Species

Affected Resources

Protected species and their habitats include ESA-listed species and designated critical habitats, which are regulated by either the USFWS or the NMFS. Protected species also include marine mammals protected under the Marine Mammal Protection Act, essential fish habitat (EFH) protected under the Magnuson-Stevens Fishery Conservation and Management Act, migratory birds protected under the Migratory Bird Treaty Act (MMPA) and bald eagles protected under the Bald and Golden Eagle Protection Act (BGEPA). The Trustees have reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA for species managed by USFWS. For this, the Trustees first reviewed the species list for Gulf County, Florida²⁴. Table 12-21 presents a summary of these potentially affected species/critical habitats and the nature of the potential impact that could result from project implementation.

Table 12-21. Potential Impacts to Species/Critical Habitats managed by USFWS

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Green turtle, Hawksbill turtle, Kemp's ridley turtle; Leatherback turtle, Loggerhead turtle	<p>All of the project areas are within existing developed areas associated with each of these boat ramps and no additional disturbance of existing habitat is proposed. The current facilities do not support nesting habitat for sea turtles; however sea turtle nesting could occur on beaches adjacent to each of these projects. Additional lighting or visitor use could disrupt normal nesting behaviors of sea turtles in nearby habitats. Conservation measures should reduce potential impacts to an insignificant and discountable level.</p> <p>The main risk to sea turtles during construction and use of these ramps would come from boat collisions which could result in harm or mortality. Consultation has been initiated with NMFS to address this risk, the agency that has jurisdiction to review impacts to sea turtles in their estuarine and marine habitats.</p>
West Indian manatee	<p>The counties in the project area are not part of the 36 Florida counties that are identified as being counties where manatees regularly occur in coastal and inland waters (U.S. Department of the Interior, 2011). However, manatees could be present in the project waters.</p> <p>The main risk to manatees during implementation of this project is noise from in-water construction and risk to manatees during use of the new ramps would come from boat collisions which could result in harm or mortality. Conservation measures are anticipated to reduce these potential impacts to an insignificant and discountable level.</p>
Piping plover and red knot	<p>The main risk to piping plovers and red knot is from human disturbance while resting and foraging in habitats adjacent to work areas and from human disturbance if boaters choose to visit nearby islands. The proposed project could result in short term increases in noise during construction which could startle individuals, though the Trustees would expect normal activity to resume within minutes or cause the individuals to move to a nearby area. Because other foraging/resting habitats are nearby (less than two miles) the Trustees would expect this temporary displacement to be within normal movement patterns for either species and consider this effect insignificant and discountable. The proposed project will not result in any changes to shoreline habitats where either species is likely to forage or rest. Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office.</p>

²⁴ The U.S. Fish and Wildlife, Panama City office website (<http://www.fws.gov/panamacity/specieslist.html>) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Gulf sturgeon and its critical habitat	NMFS was consulted on Gulf sturgeon and its Critical Habitat in the estuarine environment. As a result, Gulf Sturgeon was not considered in the consultation with the USFWS.

In addition to the protected species managed by USFWS, the Trustees reviewed the proposed projects and associated actions for potential impacts to the following protected species (status indicated) and their associated critical habitat, if appropriate, managed by NMFS:

- Gulf Sturgeon, *Acipenser oxyrinchus desotoi*, Threatened
- Smalltooth Sawfish, *Pristis pectinata*, Endangered
- Green Sea Turtle, *Chelonia mydas*, Endangered
- Loggerhead Sea Turtle, *Caretta caretta*, Threatened
- Hawksbill Sea Turtle, *Eretmochelys imbricata*, Endangered
- Leatherback Sea Turtle, *Dermochelys coriacea*, Endangered
- Kemp's Ridley Sea Turtle, *Lepidochelys kempii*, Endangered

Additional information for some of these species is provided below.

Piping Plover

The sandy beaches and shorelines within St. Josephs Bay offer suitable foraging and resting habitat for the piping plover during the winter migratory season, and piping plover may forage in the shallow waters of the project areas. However, no suitable habitat is located within the proposed project site. Natural shorelines in the proposed project vicinity provide suitable winter migration resting habitat for the piping plover. Piping plover wintering habitat includes beaches, mudflats, and sandflats, as well as barrier island beaches and spoil islands (Haig 1992, as cited by USFWS 2013c). On the Gulf Coast, preferred foraging areas were associated with wider beaches, mudflats, and small inlets (USFWS 2013). No piping plover critical habitat is located within the project site.

Red knot (*Calidris canutus rufa*)

The red knot, a federal proposed species, uses the state of Florida both for wintering habitat and migration stopover habitat for those that continue to migrate down to specific wintering locations in South America (Niles et al. 2008). Wintering and migrating red knots forage along sandy beaches, tidal mudflats, saltmarshes, and peat banks (Harrington 2001). Observations indicate that red knots also forage on oyster reef and exposed bay bottoms, and roost on high sand flats, reefs, and other sites protected from high tides (Niles et al. 2008). In wintering and migration habitats, red knots commonly forage on bivalves, gastropods, and crustaceans. Threats to wintering and stopover habitat in Florida include shoreline development, hardening, dredging, deposition, and beach raking (Niles et al. 2008).

St. Andrews Beach Mouse (*Peromyscus polionotus peninsularis*)

The St. Andrews beach mouse and its critical habitat occurs adjacent to the boat ramp. All habitat types primary, secondary and scrub dunes are essential to beach mice at the individual level. Coastal dune habitat is generally categorized as: primary dunes with sea oats and other grasses commonly distributed, secondary dunes characterized by such plants as woody goldenrod, Florida rosemary, and interior or scrub dunes dominated by scrub oaks and yaupon holly. The majority of their foraging activity

occurs within these primary and secondary dunes (Bird et al. 2013). PCE's for beach mouse critical habitat are: 1) A contiguous mosaic of primary, secondary scrub vegetation, and dune structure, with a balanced level of competition and predation and few or no competitive or predaceous nonnative species present, that collectively provide foraging opportunities, cover, and burrow sites; 2) Primary and secondary dunes, generally dominated by sea oats that, despite occasional temporary impacts and reconfiguration from tropical storms and hurricanes, provide abundant food resources, burrow sites, and protection from predators; 3) Scrub dunes, generally dominated by scrub oaks, that provide food resources and burrow sites, and provide elevated refugia during and after intense flooding due to rainfall and/or hurricane induced storm surge; 4) Functional, unobstructed habitat connections that facilitate genetic exchange, dispersal, natural exploratory movements, and recolonization of locally extirpated areas; and 5) A natural light regime within the coastal dune ecosystem, compatible with the nocturnal activity of beach mice, necessary for normal behavior, growth and viability of all life stages.

Sea Turtles and Marine Mammals

There are five species of endangered or threatened sea turtles that may occur or have the potential to occur in the project area. These include green turtle, hawksbill turtle, Kemp's ridley turtle, leatherback turtle, and loggerhead turtle. Sea turtles forage in the waters of the coastal Florida panhandle region and have the potential to occur in the waters where in-water work is proposed. The project site contains potentially suitable sea turtle nesting habitat along the sandy beach, but the site is on the bay side where nesting is uncommon.

Twenty-two marine mammals are native to the Gulf of Mexico: 21 pelagic species of whales and dolphins, and the West Indian manatee (see Chapter 3). Of these species, the endangered West Indian manatee has the potential to occur in the project area waters. Manatee typically seek out shallow seagrass areas as preferred feeding habitat. Additionally, bottlenose dolphin (*Tursiops*) populations are known to migrate into bays, estuaries, and river mouths and could be located in the proposed project area (NMFS 2013a). Bottlenose dolphins have been observed entering and leaving nearshore coastal waters (NMFS 2012).

Of the five listed endangered whale species (sperm whale, sei whale, fin whale, blue whale, humpback whale), only the sperm whale is considered to commonly occur in the Gulf of Mexico. The sperm whale is predominantly found in deep ocean waters, generally deeper than 3,280 feet, on the outer continental shelf. Due to the location of the project along a bay and the relatively shallow depth in the project area, the sperm whale, or any other endangered whale, is not likely to be present.

Smalltooth Sawfish (*Pristis pectinata*)

Smalltooth sawfish (*Pristis pectinata*) do not typically use northern Gulf of Mexico waters (NMFS 2013b).

Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)

Gulf sturgeon are restricted to the Gulf of Mexico and its drainages, occurring primarily from the Pearl River in Louisiana to the Suwannee River, in Florida (NMFS 2009). Adult fish reside in rivers for 8 to 9 months each year and in estuarine or Gulf of Mexico waters during the 3 to 4 cooler months of each year (NMFS 2009). Important marine habitats include seagrass beds with sand and mud substrates (Mason and Clugston 1993).

Gulf sturgeon critical habitat was jointly designated by the NMFS and USFWS on April 18, 2003 (50 C.F.R. 226.214). The proposed project site is located within critical habitat for Gulf sturgeon. Critical habitat was designated based on seven primary constituent elements (PCEs) essential for its conservation, as defined in the 2003 *Federal Register* and are listed below. PCE's 1, 5, 6, and 7 are present in the project area.

The PCE's are:

1. Abundant food items, such as detritus, aquatic insects, worms, and/or mollusks, within riverine habitats for larval and juvenile life stages; and abundant prey items, such as amphipods, lancelets, polychaetes, gastropods, ghost shrimp, isopods, mollusks, and/or crustaceans, within estuarine and marine habitats and substrates for subadult and adult life stages;
2. Riverine spawning sites with substrates suitable for egg deposition and development, such as limestone outcrops and cut limestone banks, bedrock, large gravel or cobble beds, marl, soapstone, or hard clay;
3. Riverine aggregation areas, also referred to as resting, holding, and staging areas, used by adult, subadult, and/or juveniles, generally, but not always, located in holes below normal riverbed depths; these are believed necessary for minimizing energy expenditure during freshwater residency and possibly for osmoregulatory functions;
4. A flow regime (i.e., the magnitude, frequency, duration, seasonality, and rate-of-change of freshwater discharge over time) necessary for normal behavior, growth, and survival of all life stages in the riverine environment, including migration, breeding site selection, courtship, egg fertilization, resting, and staging, and for maintaining spawning sites in suitable condition for egg attachment, egg sheltering, resting, and larval staging;
5. Water quality, including temperature, salinity, pH, hardness, turbidity, oxygen content, and other chemical characteristics necessary for normal behavior, growth, and viability of all life stages;
6. Sediment quality, including texture and chemical characteristics, necessary for normal behavior, growth, and viability of all life stages; and
7. Safe and unobstructed migratory pathways necessary for passage within and between riverine, estuarine, and marine habitats (e.g., an unobstructed river or a dammed river that still allows for passage).

State-Listed Birds, MBTA and BGEPA

St. Joseph Bay is a designated Important Bird Area. The proposed project is located within the St. Joseph Bay and, thus, the Important Bird Area. Various shorebirds can be found in the vicinity of the project area. The beaches within the vicinity of the project are important wintering and nesting areas for shorebirds. The common species found within the vicinity of the project site include: spotted sandpiper, ruddy turnstone, sanderling, dunlin, Western sandpiper, least sandpiper, Willet, snowy plover, semipalmated plover, Wilson's plover, common snipe, American oystercatcher, black-necked stilt, short-billed dowitcher, whimbrel, black-bellied plover, American woodcock, lesser yellowlegs, and greater yellowlegs. However, due to the highly disturbed nature of the habitat surrounding the proposed project, it is unlikely that migratory birds would utilize the project area as nesting habitat.

All migratory bird species are protected under the MBTA during the nesting season. The nesting season in Florida is from February 15 to August 13.

The bald eagle was delisted by the USFWS and is not listed as threatened or endangered by the FWC. The bald eagle is, however, protected by state law pursuant to 68A-16, Fla. Admin. Code and by the U.S. government under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Bald eagles feed on fish and other readily available mammalian and avian species and are dependent on large, open expanses of water for foraging habitat. In Florida, conservation measures to protect active nest sites during nesting season must be considered to reduce potential disturbances of certain project activities. If bald eagles are found nesting within 660 feet of a proposed construction area, then activities would need to occur outside of nesting season or coordination with the USFWS would occur to determine if a permit is needed, and Florida's Bald Eagle Management Plan guidelines would be followed (FWC 2008). According to the FWC Bald Eagle Nest Locator, there are no bald eagle nests within 1 mile of the project site.

The proposed project was also reviewed for impacts to bald eagles and migratory birds in accordance with the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-712), respectively. Table 12-22 provides a summary of the different migratory bird groups specifically addressed by this review and summarizes the potential impacts to these groups and associated habitats that could result from the implementation of this project.

Table 12-22. Potential project impacts to different migratory bird groups

SPECIES	BEHAVIOR	SPECIES/HABITAT IMPACTS
Shorebirds	Foraging, feeding, resting, nesting	Shorebirds nest, forage, feed, and rest in the types of habitats consistent with some of the shoreline areas near the proposed project. As such, they may be impacted locally and temporarily by the project.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Resting, roosting, nesting	Seabirds forage in water and rest/roost in terrestrial habitats including dunes. Seabirds may nest nearby.

Considering the nature of the potential project and the potential impacts to migratory bird groups and associated habitats, a number of conservation measures were identified and will be followed to minimize potential impacts. These measures are summarized in Table 12-23.

Table 12-23. Conservation measures to minimize impacts to migratory bird groups.

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Shorebirds	<p>The project area is not an optimal area for shorebird foraging. Therefore, the Trustees expect foraging and resting birds to move to another nearby location, likely with better habitat, to continue foraging and resting. If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.</p> <p>Signage will include information to make visitors aware of nesting birds in nearby areas and</p>

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
	any protective measures that are necessary.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	<p>Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. If the level of project activity startles foraging or resting birds, the Trustees would expect them to move a short distance and resume behaviors as noise will be localized to the existing ramp areas. The general behavior of these birds is to mediate their own exposure to human activity when given the opportunity, which they will have. Roosting should not be impacted because the project will occur during daylight hours only. If project activities occur during seabird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting seabirds or rookeries and their recommendations will be implemented.</p> <p>Signage will include information to make visitors aware of nesting birds in nearby areas and any protective measures that are necessary.</p>

Essential Fish Habitat

EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seeks to minimize adverse impacts on habitat caused by fishing and non-fishing activities. The NMFS has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column. The EFH within the project area include emergent wetlands, mud substrate, and estuarine water columns for species of fish, such as red drum, brown shrimp, pink shrimp, and white shrimp. There are no marine components of EFH in the vicinity of the project site.

Error! Reference source not found. provides a list of the species that NMFS manages under the federally Implemented Fishery Management Plan in the vicinity of the Port St. Joe Frank Pate Boat Ramp Improvement site and Gulf of Mexico.

Table 12-24. Federally managed fisheries with designated Essential Fish Habitat (EFH) in the proposed project area.

EFH CATEGORY	SPECIES
Coastal Migratory Pelagics of the Gulf of Mexico AND South Atlantic	
	Cobia
	King Mackerel
	Spanish Mackerel
Gulf of Mexico Red Drum	
	Red Drum
Reef Fish Resources of the Gulf of Mexico	
	Almaco Jack
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper
	Blueline Tilefish
	Cubera Snapper

EFH CATEGORY	SPECIES
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper
	Red Snapper
	Scamp
	Silk Snapper
	Snowy Grouper
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper
Gulf of Mexico Shrimp	
	Brown Shrimp
	Pink Shrimp
	White Shrimp
Atlantic Highly Migratory Species	
	Atlantic Sharpnose Shark-Adult
	Atlantic Sharpnose Shark-Juvenile
	Atlantic Sharpnose Shark-Neonate
	Blacknose Shark-Adult
	Blacknose Shark-Juvenile
	Blacknose Shark-Neonate
	Blacktip Shark-Adult
	Blacktip Shark-Juvenile
	Blacktip Shark-Neonate
	Bonnethead Shark-Adult
	Bonnethead Shark-Juvenile
	Bonnethead Shark-Neonate
	Bull Shark-Juvenile

EFH CATEGORY	SPECIES
	Finetooth Shark-Adult and Juvenile
	Finetooth Shark-Neonate
	Great Hammerhead Shark-All Ages
	Lemon Shark-Adult
	Lemon Shark-Juvenile
	Lemon Shark-Neonate
	Nurse Shark-Adult
	Nurse Shark-Juvenile
	Scalloped Hammerhead Shark-Adult
	Scalloped Hammerhead Shark-Juvenile
	Scalloped Hammerhead Shark-Neonate
	Spinner Shark-Adult
	Spinner Shark-Juvenile
	Spinner Shark-Neonate
	Tiger Shark-Juvenile

Environmental Consequences

Protected Species

The USFWS reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA. On May 1, 2014, the review of potential impacts to species managed by USFWS was completed (McClain, 2014). The USFWS concurred with the Trustees' determination that the proposed project may affect, but is not likely to adversely affect, St. Andrews beach mouse, five species of sea turtles in terrestrial habitats (green, hawksbill, Kemp's ridley, leatherback, and loggerhead), West Indian manatee, piping plover, and red knot (if listed). The USFWS also concurred with the Trustees' determination that the project will not adversely modify or destroy critical habitat for the St. Andrew beach mouse, piping plover, or destroy critical terrestrial habitat for the loggerhead sea turtle (if designated).

Consultation of potential impacts on protected species managed by NMFS from this project was initiated on February 11, 2014. The Trustees' review of the potential impacts of the project for protected species managed by NMFS determined the proposed action "may affect, but is not likely to adversely affect" the following species and associated critical habitats in the project implementation area:

- Gulf Sturgeon - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Smalltooth Sawfish – The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Green Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.

- Loggerhead Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Hawksbill Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Leatherback Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Kemp's Ridley Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.

Concurrence from NMFS with the Trustees' conclusions for these species and associated critical habitats is still pending.

The Trustees also evaluated the potential for take of Marine Mammals under the MMPA and due to these species' mobility and the implementation of NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006), *Standard Manatee Conditions for In-Water Work* (USFWS 2011), and USFWS recommended conservation measures for listed species and other trust resources, take of marine mammals under the MMPA is not anticipated.

Migratory Birds and Eagles

Bald eagles are not present at the project location so will not be affected. At the same time, implementation of the conservation measures previously identified in the review of potential impacts to migratory birds will prevent take of the identified migratory bird groups.

Essential Fish Habitat

From the Trustees' review the Trustees conclude the project is not likely to adversely affect EFH. The proposed dock construction will take place adjacent to the existing boat ramp extending its length. A very small area of subtidal habitat will be converted with the placing of pilings for the expanded dock, however, this will take place directly adjacent to the boat ramp, where the habitat is already likely to be significantly disturbed as a result of both the boat traffic to and from the boat ramp and use of the existing boat launch structure and shoreline habitat. Disturbance to species will be minor and brief and during construction and adjacent areas with equivalent or better habitat will be available and undisturbed allowing organisms to move away from disturbed areas.

On April 24, 2014 NMFS completed its evaluation of potential EFH impacts and concluded that the project construction is not likely to adversely affect EFH and any disturbance to species will be minor and brief (Fay, 2014).

Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem with the project area, and possibly expand out into adjacent areas after the initial introduction. The invasive species threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 3 described more about the regulations addressing invasive species,

pathways, impacts, and prevention. At this time specific invasive species that may be present on the project site or could be introduced through the project have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.39.5.5 *Human Uses and Socioeconomics*

12.39.5.5.1 *Socioeconomics and Environmental Justice*

Affected Resources

The City of Port St. Joe, similar to the rest of the Florida Panhandle, relies on the coastal waters of the Gulf of Mexico to provide a variety of economic and social benefits to its residents and visitors. The coastal ecosystems in the project area support a wide variety of commercial and recreational activities that contribute significantly to the State's economy. Sport and commercial fisheries are some of the most notable economic highlights, within the region and the State. The marine environments within the area also provide essential transportation links, support a variety of water-dependent facilities, and offer an array of recreational opportunities that attract thousands of visitors to the area each year (FDEP, 1994).

The 2011 estimated median household income in Port St. Joe was \$37,286. The major employment sectors in the Crestview-Fort Walton Beach-Destin area, which includes the project site, are government; education and health services; leisure and hospitality; and construction (City-data.com 2013).

Environmental Consequences

No adverse socioeconomic impacts are expected as a result of the proposed project. The proposed project would benefit the local economy during construction through the provision of a small number of construction jobs and associated spending on goods and services by construction workers. Following completion of construction, the project would provide improved facilities to accommodate water-based recreational activities. The improvements to the boat ramp and associated facilities would not measurably change the type or level of use at the site, and therefore are not expected to have any long-term socioeconomic impacts.

12.39.5.5.2 Cultural Resources

Affected Resources

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Environmental Consequences

A complete review of this project under Section 106 of the NHPA is ongoing and would be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within the project area. This project would be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

12.39.5.5.3 Infrastructure

Affected Resources

Infrastructure in the Florida panhandle consists of a network of interconnected structures, support facilities and transportation systems. Physical infrastructure and public services include commonly provided Federal, State, county, parish, municipal, and/or private facilities and utilities that support development and protect public health and safety.

The most significant component of the transportation network in the area is US Highway 98, which closely follows the Gulf coast from the Florida-Alabama state line to St. Marks, Florida. Highway 98 provides the main transportation arterial into and out of Mexico Beach, with the remaining transportation infrastructure consisting primarily of local residential roads. A network of canals provides local access by boat from the Gulf of Mexico to properties located inland from the coast. The closest public airport to the project site is Tallahassee Regional Airport, located approximately 75 miles northeast of the project site in Tallahassee.

Water, wastewater and sanitation services in the project area are provided by the City of Port St. Joe. Electric service in the surrounding area is provided by Florida Power Corporation and Gulf Coast Electric Cooperative. Cable television and internet are provided by Mediacom, and phone service is provided by AT&T.

Environmental Consequences

During construction of the boat ramp and related facilities, the proposed project would potentially have minor adverse impacts to infrastructure due to traffic delays and roadway damage associated with construction vehicle traffic; utility service interruptions; and potential accidental damage to utility infrastructure. Following completion of construction, the proposed improvements could lead to an increase in visitor use; however, visitor use is not expected to increase to the point where associated wear on infrastructure would lead to adverse impacts. Overall, the proposed project is expected to have long-term beneficial impacts on infrastructure through the provision of expanded and enhanced boat launch facilities.

12.39.5.5.4 Land and Marine Management

Affected Resources

Development in Port St. Joe is regulated by the City of Port St. Joe Land Development Code. Frank Pate Park, which includes the boat ramp and parking lot, is situated on land owned by the City of Port St. Joe and zoned for Municipal use (Gulf County 2013). Boat ramps are a permitted use in municipal districts (City of Port St. Joe 2013). Land uses surrounding the site include single-family residential uses, commercial uses, park uses, and vacant land.

Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS (Federal Trustees 2013). The State of Florida responded and concurred with the federal determination of consistency at this point in the early restoration planning process (Milligan 2014).

Environmental Consequences

No changes would occur to the current use at the Frank Pate boat ramp, or to uses on adjacent and nearby properties. Land ownership would remain the same, and the site would continue to be managed by The City of Port St. Joe as a public boat launch. The proposed project would be consistent with the City of Port St. Joe Land Development Code, since it is a permitted use in municipal districts.

12.39.5.5.5 Aesthetics and Visual Resources

Affected Resources

Frank Pate City Park is situated on St. Joseph Bay, an approximately 69- acre embayment of the Gulf of Mexico located within Gulf County, Florida. The landscape in the area is characterized by beaches, tidal flats, dunes, marshes and coastal waterways. Development is relatively sparse in the immediate surrounding area and consists of single-family residences and vacant land.

Environmental Consequences

Temporary impacts to aesthetics and visual resources would result from implementation of the proposed boat ramp improvements. Construction equipment would be temporarily visible to recreational users. These construction-related impacts to visual resources would be adverse but minor, since the amount of construction equipment required to complete the project would be limited, and construction activities and equipment would be visible to users for a maximum of one year. The proposed project would take place at the site of an existing boat ramp and would not change the overall visual appearance of the site or surrounding area; therefore, no long-term impacts to aesthetics and visual resources are anticipated.

12.39.5.5.6 Tourism and Recreational Use

Florida's beaches contribute greatly to the state's economy, providing benefits to a variety of user groups. Locals and tourists alike spend much time swimming, beachcombing, boating, fishing, diving, kayaking, surfing, and engaging in other active and passive activities near the beach. The areas surrounding St. Joseph Bay, like other Florida coastal communities, attract tourists to the unique and diverse wildlife and scenic habitats, abundant fishing opportunities and the sun and surf. The hotels,

restaurants, and other retail establishments within the vicinity are heavily dependent upon the revenues generated each year by the millions of residents and tourists that utilize the beach. The Florida Beaches Habitat Conservation Plan noted that Florida's tourism industry represents a \$57 billion industry and 20% of the state's economy. It generates \$3.4 billion a year alone in sales tax revenue.

Environmental Consequences

During the construction period, tourism and recreational use would be negatively impacted by noise and visual disturbances associated with the use of construction equipment. Public access to the boat ramp would be prohibited during construction activities. While these temporary inconveniences would result in minor negative impacts on tourism and recreational use, over the long term the project would result in beneficial impacts to tourism and recreational use. Opportunities for ocean-based recreational activity would be enhanced as a result of improved facilities. The project would not be expected to result in a notable increase in the number of visitors, due to its limited scope; however, the project would contribute to an improved experience for visitors and local residents using the boat ramp. Overall, adverse impacts to tourism and recreational use would be short term and minor. Over the long term, the project would result in beneficial impacts to tourism and recreational uses.

12.39.5.5.7 Public Health and Safety and Shoreline Protection

Affected Resources

The management of hazardous materials is regulated under various federal and state environmental and transportation laws and regulations, including the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Emergency Planning and Community Right-to-Know Act, and the Hazardous Materials Transportation Act. The purpose of the regulatory requirements set forth under these laws is to ensure the protection of human health and the environment through proper management (identification, use, storage, treatment, transport, and disposal) of these materials. Some of these laws provide for the investigation and cleanup of sites that have already been contaminated by releases of hazardous materials, wastes, or substances.

The project area lies at the site of an existing boat ramp and gravel parking lot with adjacent residential areas, located along the central-eastern shoreline of St. Joseph Bay. A review of the USEPA EnviroMapper revealed that there are no sources of contamination or hazardous materials located on or immediately adjacent to the Frank Pate boat ramp (USEPA 2013c). No sources of hazardous, toxic and radioactive waste (HTRW) are otherwise known to exist within the project area. Boats launching and landing at the boat ramp could potentially serve as a source of non-point pollution resulting from inadvertent releases of fuel or oil.

Environmental Consequences

Project construction would utilize mechanical equipment that uses oil, lubricants and fuels. The contractor would be required to take appropriate actions to prevent, minimize, and control the spill of construction related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills. If a release should occur such releases would be contained and cleaned up promptly in accordance with all applicable regulations. As a result, no impacts associated with construction-related hazardous materials would be anticipated.

Because of the nature and location of the project, no impacts to public health and safety or shoreline erosion are anticipated as a result of construction activities. The project and its construction are not anticipated to generate hazardous waste or the need for disposal of hazardous waste. In the event of a fuel or oil spill from construction equipment, all procedures, regulations and laws pertaining to Oil Spill Prevention and Response would be adhered to and the incident would be reported to appropriate agencies. All occupational and marine safety regulations and laws would be followed to ensure safety of all workers and monitors. Therefore, it is anticipated that there would be no impacts to public health and safety from the proposed project.

12.39.6 Summary and Next Steps

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of Port St. Joe Frank Pate Boat Ramp Improvements) project would improve the existing Frank Pate boat ramp in the City of Port St. Joe. The proposed improvements include constructing an additional boarding dock, boat trailer parking, access drive, staging area, and a fish cleaning station. The project is consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project would enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

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12.40 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description F (City of St. Marks Boat Ramp Improvements)

12.40.1 Project Summary

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of St. Marks Boat Ramp Improvements) project would improve the existing City of St. Marks boat ramp. The proposed improvements include adding a boarding dock to the one-lane boat ramp. The total estimated cost of the project is \$50,006.

12.40.2 Background and Project Description

The Trustees propose to improve and enhance an existing boat ramp in the City of St. Marks (see Figure 12-9 for general project location). This project builds on an ongoing effort initiated by the FWC through its Florida Boating Improvement Program which, in part, is used to fund applications from local governments in a competitive grant process for boat access improvement projects in remote areas, small towns and cities, and coastal counties (for more information on the program see <http://myfwc.com/boating/grant-programs/fbip/>).

The objective of the Strategically Provided Boat Access along Florida's Gulf Coast (City of St. Marks Boat Ramp Improvements) project is to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The restoration work proposed includes constructing a boarding dock to the one-lane boat ramp.

12.40.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of St. Marks Boat Ramp Improvements) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Agencies have successfully completed projects of similar scope throughout Florida over many years, including similar types of actions in earlier phases of the Deepwater Horizon Early Restoration. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.40, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and

measures to avoid or minimize adverse impacts described in 12.40 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (<http://www.gulfspillrestoration.noaa.gov>) and to the State of Florida (<http://www.deepwaterhorizonflorida.com>). In addition to meeting the criteria for the Framework Agreement and OPA, the Florida FWC Strategic Boat Access: City of St. Marks Boat Ramp Improvements project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

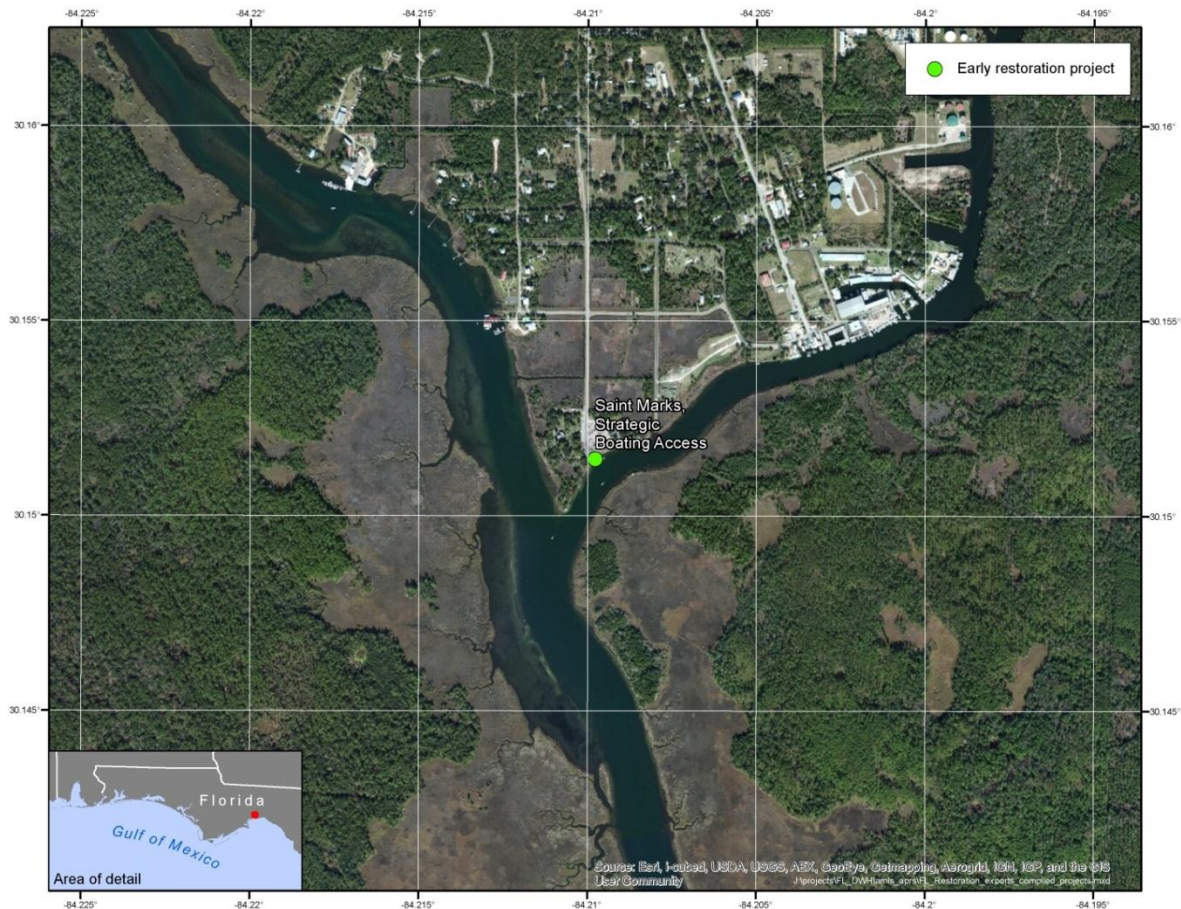


Figure 12-9. Location of FWC Strategic Boat Access City of St. Marks Boat Ramp Improvements.

12.40.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving an existing boat ramp. Performance monitoring will evaluate the construction of the boarding dock to the one-lane boat ramp. Specific performance criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by the City of St. Marks as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by the City of St. Marks.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of St. Marks will monitor the recreational use activity at the site. The City of St. Marks will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.40.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Strategically Provided Boating Access along Florida's Gulf Coast project, of which this is a component, are \$6,496,680 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.²⁵

12.40.6 Costs

The total estimated cost to implement this project is \$50,006. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

²⁵ For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.41 Strategically Provided Boat Access along Florida's Gulf Coast: Environmental Review F (City of St. Marks Boat Ramp Improvements)

Florida proposes to make improvements at the existing St. Marks Public Boat Ramp. Included in these changes is the addition of a boarding dock to an existing single-lane boat ramp. The ramp is located on 0.8 acre of property owned by the City of St. Marks at the confluence of the St. Marks and Wakulla Rivers, in the southern portion of the St. Marks city limits. This project builds on an ongoing effort initiated by the Florida Fish and Wildlife Conservation Commission (FWC) through its Florida Boating Improvement Program which, in part, is used to fund applications from local governments in a competitive grant process for boat access improvement projects in remote areas, small towns and cities, and coastal counties.

This project would enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The improvements would help address the reduced quality and quantity of recreational activities (e.g., boating and fishing) in Florida attributable to the Deepwater Horizon Oil Spill by providing enhanced access to Apalachee Bay and the Gulf of Mexico.

12.41.1 Introduction and Background

In April 2011, the Natural Resource Trustees (Trustees) and BP Exploration and Production, Inc. (BP) entered into the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement). Under the Framework Agreement, BP agreed to make \$1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is underway. The Framework Agreement is intended to expedite the start of restoration in the Gulf in advance of the completion of the injury assessment process. Early restoration is not intended to, and does not fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement), the Trustees released, after public review of a draft, a Phase I Early Restoration Plan (ERP) in April 2012. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, the National Oceanic and Atmospheric Administration (NOAA) issued a public notice in the Federal Register on behalf of the Trustees announcing the development of additional future Early Restoration projects for a Draft Phase III Early Restoration Plan (ERP). This boat ramp project was submitted as an Early Restoration project on the NOAA website (<http://www.gulfspillrestoration.noaa.gov>) and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and the Oil Pollution Act (OPA), the project meets Florida's criteria that Early Restoration projects occur in the eight-county Florida panhandle area that deployed boom and was impacted by the Spill.

The City of St. Marks boat ramp is a public boat launch facility consisting of one single-lane and one double-lane boat ramp, with 41 trailer parking spaces and 15 vehicle-only parking spaces. The facility is located on under an acre of property within the City of St. Marks, which is part of the Tallahassee Metropolitan Statistical Area (MSA).

The dock would be a fixed structure constructed of wooden decking anchored to pilings. In addition to improving boater access, the addition of the dock would enhance boater safety at the ramp by providing boat passengers with greater ease of loading and unloading. The total estimated cost to implement this project is \$50,006.

12.41.2 Project Location

St. Marks Boat Ramp is located in the City of St. Marks, Wakulla County, Florida, in Section 11, Township 4-S, Range 01-E, at latitude 30° 15' 15.07" north and longitude: -84° 20' 97.33" west. The project site is located 3 River Breeze St. St. Marks, FL 32355, Wakulla County, FL, at the confluence of the St. Marks and Wakulla Rivers in the southern portion of the city. Construction activities are to occur along the shoreline. The St. Marks River outlets to Apalachee Bay, an arm of the Gulf of Mexico indenting the coast of northern Florida in the Big Bend region, where the Florida Peninsula joins the U.S. mainland (Figure 12-10).

12.41.3 Construction and Installation

The proposed Florida FWC Strategic Boat Access project would improve the existing City of St. Marks boat ramp by adding a boarding dock to the existing one-lane boat ramp shown in Figure 12-10, which is no longer used for motor boat launching. This boarding dock would be used primarily to facilitate the launching, loading, and removal of non-motorized watercraft (e.g., canoes, kayaks). Figure 12-10 shows the project location and the surrounding area.



Figure 12-10. Vicinity and Project Location.

The project consists of constructing a dock up to 50 linear feet long and approximately 8 feet in width, composed of wood, metal grating or composite decking anchored to pilings. The length of the dock and the type of decking, including grating, manufacturer, and board spacing will be defined in the final project design. In-water excavation is not anticipated for this project activity with the emphasis being on the placement of a limited number of pilings to support and anchor the dock in the desired location. Final design and location of the dock would reflect, among other things, the results of a submerged aquatic vegetation (SAV) survey in the potential placement areas. This survey typically involves an initial review of aerial photos and existing seagrass maps. Initial results are then confirmed with an onsite visual survey typically conducted from a boat. In areas with visibility issues the assessment may involve attaching a small rake head to a line and dragging it through the area of interest to see if seagrasses are present. Snorkel assessments would then be used, if necessary, to verify results.

Should SAV be identified in the potential project area where pilings would need to be placed, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) would be implemented. Among other elements this would require pilings for the canoe/kayak launch be placed a minimum of 10 feet apart. As a result,

while the exact number of pilings has not been finalized it is expected that roughly a dozen, as a maximum, could be needed given the anticipated maximum dock length and spacing. The project could require placement of as many as 16 piles. These piles would be made out of wood, be no more than 8" in diameter, and would be placed by a combination of water jetting and mechanical auguring.

The first step in the construction of the dock will be to stake out the project area including locations for the placement of the pilings. Following this staking, the pilings would be placed to the design depth. Once the piles, beams and cross bracing are placed the decking is begun from the land and proceeds out over the water. In addition to hand tools, equipment is expected to include a small construction barge, pile-driver, and tractor trailer for transporting construction materials and equipment.

In addition, BMPs for erosion control would be implemented and maintained at all times during construction to prevent siltation and turbid discharges into surface waters from land-based activity. Methods for land-based portions of the project construction would include, but may not be limited to, the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site. Prior to the initiation of any work, erosion control measures would be put in place along the perimeter of all landward work areas to prevent the displacement of fill material into the St. Marks River. Turbidity barriers with weighted skirts extending to within one foot of the bottom would be installed along the entire shoreline length of the in-water project area prior to initiation of construction. Turbidity barriers would remain in place and be maintained until the authorized work has been completed and all erodible materials have been stabilized.

The project would require no more than 3 months of in-water work being conducted during daylight hours.

12.41.4 Operations and Maintenance

Long-term operations and maintenance of the improved facilities would be performed by the City of St. Marks as part of their regular public facilities maintenance activities. These activities would include insuring that the boat ramp and dock are in working order and defective areas would be fixed as appropriate. It is anticipated that regular operation and maintenance may include concrete repairs, replacement of planks or grates on docks, and grading or gravelling of the parking area.

12.41.5 Affected Environment and Environmental Consequences

Under the National Environmental Policy Act, federal agencies must consider environmental effects of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.41.5.1 No Action

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.41.5.2 *Physical Environment*

12.41.5.2.1 *Geology and Substrates*

Affected Resources

The project lies in the Gulf coastal lowlands physiographic province (Allen and Main 2005). The landscape of the Gulf coastal lowlands is comprised of a relatively flat terrain, ranging in elevation from 0 to about 50 feet above mean sea level. Soils in the coastal panhandle of Florida consist predominately of medium to fine grain sands and silts associated with recent Pleistocene formations.

The soils in the project area have been identified and mapped by the U.S. Department of Agriculture Natural Resource Conservation Service (USDA 1987). The NRCS data identified two soils mapped within the project and vicinity. There are Ridgewood-Ortega-Rutlege (Soil Unit 6) and Tooloes-Nutall fine sands (Soil Unit 26).

The Ridgewood-Ortega-Rutlege complex is a nearly level to gently undulating, somewhat poorly drained, moderately well drained, and very poorly drained sandy soils. They are found along most of the southern boundary of Wakulla County on the Gulf Coast.

The Tooloes-Nutall fine sands are a nearly level and poorly drained soil. These soils have a seasonally high water table. They are generally found in board areas on flatwoods.

Environmental Consequences

There are no anticipated adverse impacts to local geology, soils, and sediments associated with the project. Appropriate erosion control and mitigation measures would be implemented prior to construction. Adverse impacts to geology and substrates would be minor.

12.41.5.2.2 *Hydrology and Water Quality*

Affected Resources

The proposed project is located at the confluence of the St. Marks and Wakulla Rivers. St. Marks River is within the Apalachee Bay Watershed (Northwest Florida Water Management District 2000). The St. Marks River watershed extends from the red hills of southern Georgia to the Gulf of Mexico, covering approximately 1,170 square miles (748,800 acres). Approximately 91 percent of the watershed (1,060 square miles or 678,400 acres) lies within Jefferson, Leon, and Wakulla counties in Florida; the remainder is in Thomas County, Georgia. Surface water features include the St. Marks River; its major tributary the Wakulla River, and the headwaters of the Wakulla River, Wakulla Springs. Other major surface water features within the watershed are lakes Miccosukee, Lafayette, and Munson, and the coastal receiving waters of Apalachee Bay (NFWMD 2009). It has been classified by the Florida Department of Environmental Protection as an Outstanding Florida Water, and is the easternmost river within the Northwest Florida Water Management District (Boning, 2007).

Ground water is derived mostly from precipitation of which the majority flows down karst features into the underground Floridan Aquifer. This water moves under the influence of gravity towards the Gulf of Mexico.

There are wetlands within the vicinity of the project site however, with the exception of open water (i.e., the St. Marks River), there are no wetlands within the project footprint.

Environmental Consequences

All permit conditions requiring mitigation measures for siltation, erosion, turbidity and release of chemicals would be strictly adhered to. During construction, Best Management Practices and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts. The FDEP permit conditions require erosion and turbidity mitigation measures. These include:

- Install floating turbidity barriers
- Install erosion control measures along the perimeter of all work areas
- Stabilize all filled areas with sod, mats, barriers or a combination
- If turbidity thresholds are exceeded the project must stop, stabilize the soils, modify the work procedures, and notify the FDEP.

The FDEP permits also constitute a Certification of Compliance with State Water Quality Standards under Section 401 of the Clean Water Act, which means that the project would comply with state water quality standards and other aquatic resource protection requirements. After construction, increased boat traffic on the canal could result in minimal impacts to surface water quality.

Impacts from chemicals that could potentially be released from sources such as construction equipment and boats are expected to be negligible. Required spill containment measures would be implemented for applicable construction activities. FDEP permits require spill containment protection and mitigation measures such as:

- No boat repair or fueling facilities over the water,
- Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting.

Best Management Practices along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts associated with construction activities. Best Management Practices for erosion control would be implemented and maintained at all times during construction to prevent siltation and turbid discharges into waters of the state. Silt and sedimentation control measures would be installed and properly maintained to protect water quality resources.

The proposed discharge of dredged or fill material into waters of the United States, including wetlands, or work affecting navigable waters associated with this project is currently being coordinated with the U.S. Army Corps of Engineers (USACE) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA). Coordination with the USACE and final authorization pursuant to CWA/RHA will be completed prior to project implementation.

Given that there would be no substantial change in uses at the project site following implementation of the proposed enhancement activities, it is anticipated that there would be no long-term negative impacts to water resources. The implementation of the proposed project would therefore result in short-term minor negative impacts on water resources. This project would not impact groundwater. There would be no adverse impacts to hydrology or water quality.

Overall, potential impacts to water resources are expected to be minor, temporary and localized in nature.

12.41.5.2.3 Air Quality and Greenhouse Gas Emissions

Affected Resources

The Clean Air Act (CAA) requires the State of Florida to adopt ambient air quality standards to protect the public from potentially harmful amounts of pollutants. Six common air pollutants (also known as "criteria pollutants") are regulated by EPA and the states under the CAA. They are particle pollution (often referred to as particulate matter), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. The Florida Department of Environmental Protection (DEP) has designated areas meeting the state's ambient air quality standards by their monitoring and modeling program efforts, (i.e., attainment areas). Florida has no nonattainment areas within the panhandle region.

Currently, Wakulla County is classified by EPA as an attainment area in accordance with the National Ambient Air Quality Standards (NAAQS). The City of St. Marks is not within an EPA Class 1 air quality area; however, St. Marks National Wildlife Refuge, located approximately 80 miles to the east, is designated as a Class I air quality area (EPA 2013a). Class I air quality areas are afforded special protection under the Clean Air Act. Any proposed new or modified sources of air pollution locating within approximately 200 miles (300 km) of a Class I air quality area are asked to consult with the Federal Land Manager to determine whether emission impact modeling to the Class I area should be conducted and submitted to the Federal Land Manager for review (USFWS 2013). Therefore, the proposed boat ramp improvements would be subject to consultation regarding potential emissions impacts on St. Marks National Wildlife Refuge. Factors to be considered include distance to the Class I area, magnitude of emissions, current conditions of air sensitive resources in the Class I area, potential for source growth in an area or region, prevailing meteorological conditions, and cumulative impacts of multiple sources to air sensitive resources.

Beginning in 2011, the CAA also regulates emissions of greenhouse gases (GHG) (EPA 2013b). The EPA's GHG Reporting Rule establishes mandatory GHG reporting requirements for sources that emit 25,000 metric tons or more of carbon dioxide equivalent (CO₂e) per year (EPA 2013b).

Environmental Consequences

Project implementation would require the use of a barge-mounted pile driver and potentially some land-based heavy equipment, plus a tractor trailer for transport of construction materials and equipment, for up to 8 hours per day over a 1-year construction period. This would temporarily affect air quality and elevate greenhouse gas levels in the project vicinity due to emissions and increased dust from operation of construction vehicles and equipment. Any air quality impacts that would occur would be localized, limited to the construction phase of the project, and limited by the size of the project.

Therefore, impacts to air quality would be negative but minor and short-term. The project would have no long term impacts on air quality.

Engine exhaust from construction equipment would contribute to an increase in greenhouse gas emissions. Table 12-25 describes the likely greenhouse gas emission scenario for the implementation of this project.

Table 12-25. Greenhouse Gas Impacts of the proposed project.

CONSTRUCTION EQUIPMENT	NO. OF HOURS OPERATED ²⁶	CO2 (METRIC TONS) ²⁷	CH4 (CO2E) (METRIC TONS) ²⁸	NOX (CO2E) (METRIC TONS)	TOTAL CO2E (METRIC TONS)
Pile Driver	1920	81.6	0.048	0.48	82.13
Backhoe	1920	81.6	0.048	0.48	82.13
Tractor Trailer ²⁹	1920	81.6	0.048	0.48	82.13
TOTAL					246.39

Based on the assumptions described in Table 12-25 above, GHG emissions would not exceed 25,000 metric tons per year. Given the projected construction-phase GHG emissions, along with the small scale and short duration of the project, predicted impacts from greenhouse gas emissions would be short-term and minor.

12.41.5.2.4 Noise

Affected Resources

Noise can be defined as unwanted sounds and sound levels, and its impacts are interpreted in relationship to impacts on nearby persons and wildlife. The Noise Control Act of 1972 (42 U.S.C. 4901 to 4918) was enacted to establish noise control standards and to regulate noise emissions from commercial products such as transportation and construction equipment. The standard measurement unit of noise is the decibel (dB), which represents the acoustical energy present. Noise levels are measured in A-weighted decibels (dBA), a logarithmic scale which approaches the sensitivity of the human ear across the frequency spectrum. A 3-dB increase is equivalent to doubling the sound pressure level, but is barely perceptible to the human ear. Table 12-26 shows typical noise levels for common sources expressed in dBA. Noise exposure depends on how much time an individual spends in different locations.

²⁶ Emissions assumptions for all equipment based on 240 8-hour days of operation per piece of equipment over a 12-month construction period.

²⁷ CO₂ emissions assumptions for diesel and gasoline engines based on USEPA 2009.

²⁸ CH₄ and NO_x emissions assumptions and CO₂e calculations based on USEPA 2011.

²⁹ Construction equipment emission factors based on USEPA NONROAD emission factors for 250hp pieces of equipment. Data was accessed through the California Environmental Quality Act Roadway Construction Emissions Model

Table 12-26. Common noise levels.

NOISE SOURCE OR EFFECT	SOUND LEVEL (DBA)
Rock-and-roll band	110
Truck at 50 feet	80
Gas lawnmower at 100 feet	70
Normal conversation indoors	60
Moderate rainfall on foliage	50
Refrigerator	40
Bedroom at night	25

Source: Adapted from BPA 1986, 1996

Noise levels in the project area vary depending on the season, time of day, number and types of noise sources, and distance from noise sources. Existing sources of noise in the project area include motor vehicle traffic on Highway 98, recreational boating, commercial vessels, overhead aircraft and ambient natural sounds such as wind, waves, and wildlife.

Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise sources or levels due to the project. Noise-sensitive receptors in the project area include residential communities and wildlife.

Environmental Consequences

Instances of increased noise are expected during the construction phase associated with the restoration project. The proposed project would generate construction noise associated with the addition of a boarding dock to the existing single-lane boat ramp. Construction equipment noise is known to disturb fish, marine mammals and nesting shorebirds (discussed below). Construction noise would also create a potential nuisance to visitors and residents in areas adjacent to project construction activities.

Construction noise would be temporary and limited to daytime hours, and the construction period is not anticipated to last more than one year. Because construction noise would be temporary, negative impacts to the human environment during construction activities would be short-term and minor, as they would likely attract attention but would not result in visitors changing their activities.

After completion of the project, noise sources would be expected to include the existing sources described above, and noise levels would return to pre-project conditions. There exists potential for increased boat and automobile traffic resulting from improvements to the boat ramp, which would result in a slight increase in noise levels in the vicinity. Overall, long-term noise impacts from boating and other recreational activities would remain minor. Likewise, noise impacts from commercial vessels, highway traffic, and ambient natural sounds would be minor.

12.41.5.3 *Biological Environment*

12.41.5.3.1 *Living Coastal and Marine Resources*

Wildlife

Affected Resources

Terrestrial vegetation and wildlife habitat within the project footprint is of limited quality and quantity. As a result of past development and shoreline armoring, there is very little vegetation or wildlife habitat present on the upland portions of the site. A majority of the project site consists of a paved parking lot and boat ramp. The unvegetated parking lot and boat ramp habitat type comprises most of the project site, and consists of unvegetated areas that are completely developed with infrastructure such as buildings, paved and graveled surfaces and boat ramp. These areas are devoid, or nearly devoid, of vegetation and largely impervious. They provide little to no wildlife habitat function. A review of an aerial view of the site reveals that the areas adjacent to the project site are undeveloped and mostly natural habitat. They consist of what appears to be upland forest scrub shrub as well as extensive wetlands systems.

The riparian area within the proposed project site is mostly devoid of vegetation, with the exception of a few scattered trees and patches of ruderal grass/forb habitat within the riparian buffer zone. Impervious surfaces include existing roadways, compacted soil, buildings, paved and graveled surfaces and boat ramp. The bank is armored with riprap, and above the riprap, there is a narrow band of ruderal grass/forb habitat.

The project site is surrounded for the most part by undeveloped natural environments and based on the types of habitat present, it is expected that species such as deer, raccoon, opossum, gray squirrel, and other small mammals would be present in upland areas within the vicinity of each project.

Fishes

The St. Marks River and Apalachee Bay Watershed supports numerous fish include: large and small mouth bass, sunfish, redeye chub, coastal shiner, Seminole killifish, bluefin killifish, eastern mosquitofish, and Okefenokee pygmy sunfish, striped mullet, spotted seatrout, sand seatrout, red drum, black drum, silver perch, Atlantic croaker, southern king, southern flounder, gulf flounder, gulf menhaden, striped mullet, Florida pompano, and Spanish mackerel.

Environmental Consequences

Habitat

The proposed project would be located at the site of an existing boat ramp and parking lot. Due to the lack of vegetation present at the site, impacts on native vegetation would not be expected. The construction activity would result in short term temporary minor impacts to common wildlife, these species would move away from the area during construction and then return after. Habitat conditions after construction would be similar to the existing conditions, and no long-term impacts to common wildlife would be anticipated.

The upland areas within the project site do not contain critical habitat for any listed species. Construction would cause only minimal alteration and/or damage to habitats.

The project would require FDEP and USACE permits. Both the FDEP Wetland and Environmental Resource Field permits and USACE Permit require Best Management Practices (BMPs) for species protection and turbidity and erosion control to be implemented. This would help minimize the damage and loss of habitats. All construction activities would be done in compliance with FDEP and USACE permit conditions.

Fishes

This project would likely result in short term minor impacts due to construction related disturbances; however, there would likely be no impact to feeding, reproduction, or other factors affecting population levels. Short-term, localized minor impacts to fisheries resources would occur during the construction phase of the project. They would be expected to move away from the site during construction and return following completion of construction.

Any impacts to fisheries resources are expected to be short in duration and minor.

Protected Species

Affected Resources

Protected species and their habitats include ESA-listed species and designated critical habitats, which are regulated by either the USFWS or the NMFS. Protected species also include marine mammals protected under the Marine Mammal Protection Act, essential fish habitat (EFH) protected under the Magnuson-Stevens Fishery Conservation and Management Act, migratory birds protected under the Migratory Bird Treaty Act (MBTA) and bald eagles protected under the Bald and Golden Eagle Protection Act (BGEPA).

The Trustees have reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA for species managed by USFWS. For this, the Trustees first reviewed the species list for Wakulla County, Florida³⁰. Table 12-27 presents a summary of these potentially affected species/critical habitats and the nature of the potential impact that could result from project implementation.

The Trustees have reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA for species managed by USFWS. For this, the Trustees first reviewed the species list for Wakulla County, Florida³¹. Table 12-27 presents a summary of these potentially affected species/critical habitats and the nature of the potential impact that could result from project implementation.

³⁰ The U.S. Fish and Wildlife, Panama City office website (<http://www.fws.gov/panamacity/specieslist.html>) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

³¹ The U.S. Fish and Wildlife, Panama City office website (<http://www.fws.gov/panamacity/specieslist.html>) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

Table 12-27. Potential Impacts to Species/Critical Habitats managed by USFWS

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
West Indian manatee	Manatees are commonly present in Wakulla Springs and could be using Wakulla River and St. Mark's rivers. Manatees could be startled during pile driving during construction. Visitor use could result in boat collisions with manatees which could result in harm or mortality.

In addition to the protected species managed by USFWS, the Trustees reviewed the proposed projects and associated actions for potential impacts to the following protected species (status indicated) and their associated critical habitat, if appropriate, managed by NMFS:

- Gulf Sturgeon, *Acipenser oxyrinchus desotoi*, Threatened
- Smalltooth Sawfish, *Pristis pectinata*, Endangered
- Green Sea Turtle, *Chelonia mydas*, Endangered
- Loggerhead Sea Turtle, *Caretta caretta*, Threatened
- Hawksbill Sea Turtle, *Eretmochelys imbricata*, Endangered
- Leatherback Sea Turtle, *Dermochelys coriacea*, Endangered
- Kemp's Ridley Sea Turtle, *Lepidochelys kempii*, Endangered

State-Listed Birds, MBTA, and BGEPA

The location of the project up the St Marks River does not provide suitable habitat for shorebirds. All migratory bird species are protected under the Migratory Bird Treaty Act (MBTA) during the nesting season. The nesting season in Florida is from February 15 to August 13. The area is utilized by many bird species including waterfowl, gulls, and raptors.

The bald eagle was delisted by the USFWS and is not listed as threatened or endangered by the FWC. The bald eagle is, however, protected by state law pursuant to 68A-16, Fla. Admin. Code and by the U.S. government under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Bald eagles feed on fish and other readily available mammalian and avian species and are dependent on large, open expanses of water for foraging habitat. In Florida, conservation measures to protect active nest sites during nesting season must be considered to reduce potential disturbances of certain project activities. If bald eagles are found nesting within 660 feet of a proposed construction area, then activities would need to occur outside of nesting season or coordination with the USFWS would occur to determine if a permit is needed, and Florida's *Bald Eagle Management Plan* guidelines would be followed (FWC 2008). According to the FWC Bald Eagle Nest Locator, there are no bald eagle nests within 1 mile of the project site.

The proposed project was also reviewed for impacts to bald eagles and migratory birds in accordance with the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-712), respectively. Table 12-28 provides a summary of the different migratory bird groups specifically addressed by this review and summarizes the potential

impacts to these groups and associated habitats that could result from the implementation of this project.

Table 12-28. Potential project impacts to different migratory bird groups

SPECIES	BEHAVIOR	SPECIES/HABITAT IMPACTS
Wading birds and songbirds	Foraging, feeding, resting, nesting	Wading birds and songbirds collectively forage, feed, rest, and may nest and in the types of habitats consistent with some of the areas near the proposed project location. As such, they may be impacted locally and temporarily by the project. It is expected that they would be able to move to another nearby location to continue foraging, feeding and resting activities. Therefore the Trustees do not anticipate impacts. The short duration of the anticipate activity is also unlikely to adversely affect nesting activity as noise and disruption would already be issues with the site being an active boat ramp .

Considering the nature of the potential project and the potential impacts to migratory bird groups and associated habitats, a number of conservation measures were identified and will be followed to minimize potential impacts. These measures are summarized in Table 12-29.

Table 12-29. Conservation measures to minimize impacts to migratory bird groups

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Wading birds and songbirds	Care will be taken to minimize noise and physical disruptions near areas where foraging, resting, or nesting birds are encountered. All disturbances will be localized and temporary. The general behavior of these birds is to mediate their own exposure to human activity when given the opportunity, which they will have. Roosting should not be impacted because the project will occur during daylight hours only.

Essential Fish Habitat

EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seeks to minimize adverse impacts on habitat caused by fishing and non-fishing activities. The NMFS has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column. The EFH within the project area include emergent wetlands, mud substrate, and estuarine water columns for species of fish, such as red drum, brown shrimp, pink shrimp, and white shrimp. There are no marine components of EFH in the vicinity of the project site.

Table 12-30 provides a list of the species that NMFS manages under the federally Implemented Fishery Management Plan in the vicinity of the City of St. Marks Boat Ramp site and the St. Marks River which outlets to Apalachee Bay.

Table 12-30. Federally managed fisheries with designated Essential Fish Habitat (EFH) in the proposed project area.

EFH CATEGORY	SPECIES
Coastal Migratory Pelagics of the Gulf of Mexico AND South Atlantic	
	Cobia
	King Mackerel
	Spanish Mackerel
Gulf of Mexico Red Drum	
	Red Drum
Gulf of Mexico Shrimp	
	Brown Shrimp
	Pink Shrimp
	White Shrimp
Reef Fish Resources of the Gulf of Mexico	
	Almaco Jack
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper
	Blueline Tilefish
	Cubera Snapper
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper
	Red Snapper
	Scamp
	Silk Snapper
	Snowy Grouper
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper

Environmental Consequences

Section 7 Consultation

The USFWS reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA. On February 6, 2014, the review of potential impacts to species managed by USFWS was completed (Reynolds, 2014). The USFWS concurred with the Trustees' determination that the proposed project may affect, but is not likely to adversely affect West Indian manatee.

Consultation of potential impacts on protected species managed by NMFS from this project was initiated on February 19, 2014. The Trustees' review of the potential impacts of the project for protected species managed by NMFS determined the proposed action "may affect, but is not likely to adversely affect" the following species and associated critical habitats in the project implementation area:

- Gulf Sturgeon - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Smalltooth Sawfish – The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Green Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Loggerhead Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Hawksbill Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Leatherback Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Kemp's Ridley Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.

Concurrence from NMFS with the Trustees' conclusions for these species and associated critical habitats is still pending.

The Trustees also evaluated the potential for take of Marine Mammals under the MMPA and due to these species' mobility and the implementation of NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006), *Standard Manatee Conditions for In-Water Work* (USFWS 2011), and USFWS recommended conservation measures for listed species and other trust resources, take of marine mammals under the MMPA is not anticipated.

State-Listed Birds, MBTA, and BGEPA

Bald eagles are not present at the project location so will not be affected. At the same time, implementation of the conservation measures previously identified in the review of potential impacts to migratory birds will prevent take of the identified migratory bird groups.

Essential Fish Habitat

The proposed work in the EFH area reflects installation of a boarding dock adjacent to the existing boat ramp. As a result, disturbance to species will be limited in their spatial extent, minor in scope, and brief in duration. Construction activities will be conducted at the site of existing structures and may have a minor, short term impact on habitat. Construction of the new dock would convert a small area of potential habitat to a less favorable condition, however, the location is currently actively used as a boat launch facility, and therefore it is unlikely that the project location currently provides high-quality habitat. During construction, all appropriate BMPs will be followed to minimize the potential impacts of construction activities on EFH and species in the area. During construction, adjacent areas with equivalent or better habitat will be available and undisturbed and organisms could move away from disturbed areas. Therefore, the project is not likely to adversely affect EFH.

On April 24, 2014 NMFS completed its evaluation of potential EFH impacts and concluded that the project construction is not likely to adversely affect EFH and any disturbance to species will be minor and brief (Fay, 2014).

Marine Mammals

Manatees are likely to be present in the project vicinity due to their use of Wakulla Springs and River. It is anticipated that manatees would not be attracted to the area of the boat ramp due to the lack of submerged vegetation for foraging at the site. In addition, the Standard Manatee Conditions for In-Water work (USFWS 2011) will be implemented to minimize any impacts to manatee such that they are short term and minor.

Due to the location of the project occurring in terrestrial areas and at an existing boat ramp and the relatively shallow depth in the project area, the presence of dolphins and whales, is highly unlikely and no impacts are expected.

Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem within the project area, and possibly expand out into adjacent areas after the initial introduction. The invasive species threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 3 described more about the regulations addressing invasive species, pathways, impacts, and prevention. At this time specific invasive species that may be present on the project site or could be introduced through the project have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best

management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.41.5.4 Human Uses and Socioeconomics

12.41.5.4.1 Socioeconomics and Environmental Justice

Affected Resources

The City of St. Marks, similar to the rest of the Florida Panhandle, relies on the coastal waters of the Gulf of Mexico to provide a variety of economic and social benefits to its residents and visitors. The coastal ecosystems in the project area support a wide variety of commercial and recreational activities that contribute significantly to the State's economy. Sport and commercial fisheries are some of the most notable economic highlights, within the region and the State. The marine environments within the area also provide essential transportation links, support a variety of water-dependent facilities, and offer an array of recreational opportunities that attract thousands of visitors to the area each year (FDEP, no date).

The 2011 median household income in the City of St. Marks was \$74,625 (City-data.com 2013). The largest employment sectors in the Tallahassee MSA in 2012 were government; trade, transportation and utilities; and education and health services (BLS 2012).

Environmental Consequences

No adverse socioeconomic impacts are expected as a result of the proposed project. The proposed project would benefit the local economy during construction through the provision of a small number of construction jobs and associated spending on goods and services by construction workers. Following completion of construction, the project would provide improved facilities to accommodate water-based recreational activities. Given the limited scope of the proposed improvements, the project is not expected to have any long-term socioeconomic impacts.

12.41.5.4.2 Cultural Resources

Affected Resources

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Environmental Consequences

A complete review of this project under Section 106 of the NHPA is ongoing and would be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within the project area. This project would be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

12.41.5.4.3 Infrastructure

Affected Resources

Infrastructure in the Florida panhandle consists of a network of interconnected structures, support facilities and transportation systems. Physical infrastructure and public services include commonly provided Federal, State, county, parish, municipal, and/or private facilities and utilities that support development and protect public health and safety.

The City of St. Marks is well served by a network of regional arterials and US and state highways. The most significant components of the transportation network in the immediate project area is US Highway 98, which extends from western Mississippi to southern Florida and closely follows the Gulf coast from the Florida-Alabama state line to St. Marks. Access to the project site is River Breexe Street and Old Fort Road and a network of other residential streets which provide access to US Highway 98 and central St. Marks. The closest public airport to the project site is Tallahassee Regional Airport, located approximately 24 miles northwest of the project site in Tallahassee.

Water, wastewater, and sanitation services in the project area are provided by the City of St. Marks. Electric service in the area is provided by Gulf Power Company. Cable television and internet are provided by Mediacom, and phone service is provided by AT&T.

Environmental Consequences

During construction of the boat ramp improvements, the proposed project would potentially have minor adverse impacts to infrastructure due to traffic delays and roadway damage associated with construction vehicle traffic; utility service interruptions and potential accidental damage to utility infrastructure; and closure of the boat ramp to public use. Following completion of construction, the proposed improvements could lead to an increase in use; however, use is not expected to increase to the point where associated wear on infrastructure would lead to adverse impacts. Overall, the proposed project is expected to have long-term beneficial impacts on infrastructure through the provision of enhanced recreational boating access facilities.

12.41.5.5 Land and Marine Management

Affected Resources

Development in the City of St. Marks is guided by the City of St. Marks Comprehensive Plan and regulated according to the City of St. Marks Land Development Code (City of St. Marks 2010; 2013). Zoning and land development decisions are subject to review and approval by the City Commission. The project site is situated on land owned by the City of St. Marks and zoned for Recreation uses (City of St. Marks 2012). The proposed project is a permitted use in Recreation districts (City of St. Marks 2012). Land surrounding the site is largely vacant.

Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS (Federal Trustees 2013). The State of Florida responded and

concurred with the federal determination of consistency at this point in the early restoration planning process (Milligan 2014).

Environmental Consequences

No changes would occur to the current use at the St. Marks boat ramp, or to uses on adjacent and nearby properties. Land ownership would remain the same, and the site would continue to be managed as a public boat ramp. The proposed project would be consistent with the City of St. Marks Land Development Code, since it is a permitted use in Recreation districts.

12.41.5.5.1 Aesthetics and Visual Resources

Affected Resources

The City of St. Marks is situated on the St. Marks River, which outlets to Apalachee Bay approximately 4 miles southwest of the project site. The landscape in the region is characterized by woodlands, wetlands, urban development, and coastal waterways, with marshes, beaches, and tidal flats closer to the Gulf coast. Development in the City of St. Marks is characteristic of urban and suburban communities in the Tallahassee metropolitan area, and consists of low-rise commercial, hotel and multi-family and single-family residential buildings. The landscape surrounding the project site is largely vacant of development and characterized by woodlands and wetlands.

Environmental Consequences

Temporary impacts to aesthetics and visual resources would result from implementation of the proposed boat ramp and dock improvements. Construction equipment would be temporarily visible to visitors and recreational users. These construction-related impacts to visual resources would be adverse but minor, since the amount of construction equipment required to complete the project would be limited, and construction activities and equipment would be visible to residents and visitors for a maximum of two years. The proposed project would take place at the site of an existing boat ramp and would not change the overall visual appearance of the site or surrounding area; therefore, no long-term impacts to aesthetics and visual resources are anticipated.

12.41.5.5.2 Tourism and Recreational Use

The City of St. Marks is located in the Tallahassee MSA. St. Marks is a popular location for recreational and commercial fishing. Locals and tourists also spend much time swimming, beachcombing, boating, fishing, diving, kayaking, surfing, and engaging in other active and passive activities near the beach (City of St. Marks 2013).

Environmental Consequences

During the construction period, tourism and recreational use would be negatively impacted by noise and visual disturbances associated with the use of construction equipment. Public access to the boat ramp would be prohibited during construction activities. While these temporary inconveniences would result in minor negative impacts on tourism and recreational use, over the long term the project would result in beneficial impacts to tourism and recreational use. Opportunities for ocean-based recreational activity would be enhanced as a result of improved facilities. The project would not be expected to result in a notable increase in the number of visitors, due to its limited scope; however, the project would contribute to an improved experience for local residents using the boat ramp. To the extent that

visitor use increases as a result of the proposed project, it would have beneficial impacts to tourism as well. Overall, adverse impacts to tourism and recreational use would be short term and minor. Over the long term, the project would result in beneficial impacts to tourism and recreational uses.

12.41.5.5.3 Public Health and Safety and Shoreline Protection

Affected Resources

The management of hazardous materials is regulated under various federal and state environmental and transportation laws and regulations, including the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Emergency Planning and Community Right-to-Know Act, and the Hazardous Materials Transportation Act. The purpose of the regulatory requirements set forth under these laws is to ensure the protection of human health and the environment through proper management (identification, use, storage, treatment, transport, and disposal) of these materials. Some of these laws provide for the investigation and cleanup of sites that have already been contaminated by releases of hazardous materials, wastes, or substances.

The project site lies on a parcel of city-owned land that is undeveloped except for a boat ramp and gravel parking area. Adjacent properties are characterized by single-family residential development. A review of the US Environmental Protection Agency (USEPA) EnviroMapper revealed that there are no sources of contamination or hazardous materials located on or immediately adjacent to the St. Marks boat ramp (EPA 2013c). No sources of hazardous, toxic and radioactive waste (HTRW) are otherwise known to exist within the project area. Boats launching and landing at the ramp could potentially serve as a source of non-point pollution resulting from inadvertent releases of fuel or oil.

Environmental Consequences

Project construction would utilize mechanical equipment that uses oil, lubricants and fuels. The contractor would be required to take appropriate actions to prevent, minimize, and control the spill of construction related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills. If a release should occur such releases would be contained and cleaned up promptly in accordance with all applicable regulations. As a result, no impacts associated with construction-related hazardous materials would be anticipated.

Because of the nature and location of the project, no impacts to public health and safety or shoreline erosion are anticipated as a result of construction activities. The project and its construction are not anticipated to generate hazardous waste or the need for disposal of hazardous waste. In the event of a fuel or oil spill from construction equipment, all procedures, regulations and laws pertaining to Oil Spill Prevention and Response would be adhered to and the incident would be reported to appropriate agencies. All occupational and marine safety regulations and laws would be followed to ensure safety of all workers and monitors. Therefore, it is anticipated that there would be no impacts to public health and safety from the proposed project.

12.41.6 Summary and Next Steps

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of St. Marks Boat Ramp Improvements) project would improve the existing City of St. Marks boat ramp. The proposed improvements include adding a boarding dock to the one-lane boat ramp. The project is consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose

to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project would enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

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12.42 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description G (Walton County, Choctaw Beach Boat Ramp Improvements)

The Strategically Provided Boat Access along Florida's Gulf Coast: Walton County, Choctaw Beach Boat Ramp Improvements project component has been dropped from the Final Phase III ERP/PEIS. Walton County requested the Trustees to withdraw the project so the County could seek funding from other sources to construct this project. Total funds allocated to the Choctaw Beach Boat Ramp project component were \$140,642.00.

The funds from the Strategically Provided Boat Access along Florida's Gulf Coast: Choctaw Beach project component will be re-allocated to the Strategically Provided Boat Access along Florida's Gulf Coast: City of Mexico Beach Marina project component. (see Section 12.29). After recently revisiting the Choctaw Beach project site, it has been determined that engineering and environmental concerns would warrant using a different pilings installation method at the site. It is now being proposed to revise the extraction and installation of pilings and the retaining wall from traditional hammer type construction to press type construction. The estimated increase in costs for using the press type construction method will be \$100,642.00. Estimated increases in costs to improve accessibility will be \$40,000.00. Total estimated costs to address the above issues will be \$140,642.00. None of the proposed improvements would change the footprint of the originally proposed Mexico Beach Marina project component. The re-allocation of funds from the Choctaw Beach Boat Ramp project component to the Mexico Beach Marina project component does not affect the BCR that was negotiated with BP for the Strategically Provided Boat Access along Florida's Gulf Coast suite of projects.

12.43 Strategically Provided Boat Access along Florida's Gulf Coast: Environmental Review G (Walton County, Choctaw Beach Boat Ramp Improvements)

The Section has been intentionally left blank, due to removal of this project component in the Final Phase III ERP/PEIS.

12.44 Strategically Provided Boat Access along Florida’s Gulf Coast: Project Description H (Walton County, Lafayette Creek Boat Dock Improvements)

12.44.1 Project Summary

The proposed Strategically Provided Boat Access along Florida’s Gulf Coast (Walton County Lafayette Creek Boat Dock Improvements) project would improve the existing Lafayette Creek boat dock in Walton County. The proposed improvements include expanding the dock by 400 feet at the boat ramp to accommodate larger vessels and additional vessels. The total estimated cost of the project is \$207,850.

12.44.2 Background and Project Description

The Trustees propose to improve and enhance an existing boat dock at Lafayette in Walton County (see Figure 12-11 for general project location). This project builds on an ongoing effort initiated by the FWC through its Florida Boating Improvement Program which, in part, is used to fund applications from local governments in a competitive grant process for boat access improvement projects in remote areas, small towns and cities, and coastal counties (for more information on the program see <http://myfwc.com/boating/grant-programs/fbip/>).

The objective of the Strategically Provided Boat Access along Florida’s Gulf Coast (Walton County Lafayette Creek Boat Dock Improvements) project is to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The restoration work proposed includes expanding the dock by 400 feet at the boat ramp to accommodate larger vessels and additional vessels.

12.44.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public’s access to and enjoyment of the natural resources along Florida’s Panhandle was denied or severely restricted. The proposed Strategically Provided Boat Access along Florida’s Gulf Coast (Walton County Lafayette Creek Boat Dock Improvements) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project would enhance and/or increase opportunities for the public’s use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Agencies have successfully completed projects of similar scope throughout Florida over many years, including similar types of actions in earlier phases of the Deepwater Horizon Early Restoration. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.44, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.44 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

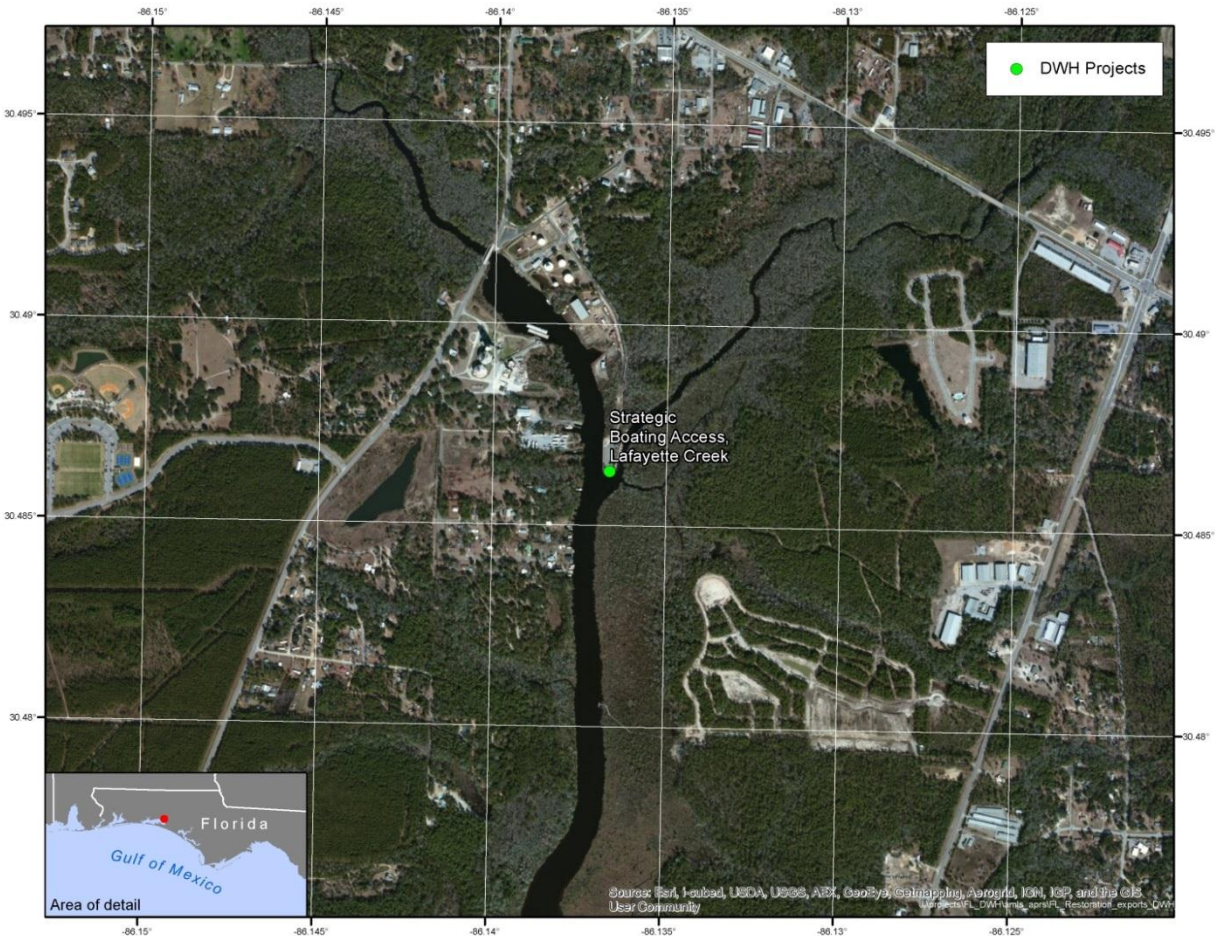


Figure 12-11. Location of FWC Strategic Boat Access Walton County, Lafayette Creek Boat Dock improvements.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (<http://www.gulfspillrestoration.noaa.gov>) and to the State of Florida (<http://www.deepwaterhorizonflorida.com>). In addition to meeting the criteria for the Framework Agreement and OPA, the Florida FWC Strategic Boat Access: Walton County, Lafayette Creek Boat Dock Improvements project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.44.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving an existing boat ramp. Performance monitoring will evaluate the construction of the dock. Specific performance criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp facility is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Walton County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Walton County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Walton County will monitor the recreational use activity at the site. Walton County will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.44.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Strategically Provided Boating Access along Florida's Gulf Coast project, of which this is a component, are \$6,496,680 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.³²

12.44.6 Costs

The total estimated cost to implement this project is \$207,850. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

³² For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.45 Strategically Provided Boat Access along Florida's Gulf Coast: Environmental Review F (Walton County, Lafayette Creek Boat Dock Improvements)

Public boat ramps provide local boaters with access to public waterways. Boating access provides the primary infrastructure upon which many types of secondary activities may be enjoyed. Water-dependent activities, including fishing, SCUBA diving, water-skiing, and simply cruising local waterways under power or sail, provide not only recreational value but also substantial economic value to the local and state economies.

Florida proposes to make improvements at the existing Lafayette Creek boat ramp and docking facility in the City of Freeport, Florida, as it does not meet the current demand of the area. Included in these improvements is the installation of a boardwalk and docking facility adjacent to an existing docking facility. This property is located in southern Walton County, along Lafayette Creek about one mile from LaGrange Bayou, which extends northeast of Choctawhatchee Bay. The property is owned and managed by The City of Freeport.

The project would provide boaters with enhanced access from the Lafayette Creek boat ramp to offshore areas within Choctawhatchee Bay and the Gulf of Mexico. This project would help address the reduced quality and quantity of recreational activities (e.g., boating and fishing) in Florida attributable to the Deepwater Horizon Oil Spill.

This project satisfies the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. This proposed project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

12.45.1 Introduction and Background

In April 2011, the Natural Resource Trustees (Trustees) and BP Exploration and Production, Inc. (BP) entered into the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement). Under the Framework Agreement, BP agreed to make \$1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is underway. The Framework Agreement is intended to expedite the start of restoration in the Gulf in advance of the completion of the injury assessment process. Early restoration is not intended to, and does not fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement), the Trustees released, after public review of a draft, a Phase I Early Restoration Plan (ERP) in April 2012. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, the National Oceanic and Atmospheric Administration (NOAA) issued a public notice in the Federal Register on behalf of the Trustees announcing the development of additional future Early Restoration projects for a Draft Phase III Early Restoration Plan (ERP). This boat ramp project was submitted as an Early Restoration project on the NOAA website (<http://www.gulfspillrestoration.noaa.gov>) and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and the Oil Pollution Act (OPA), the project meets Florida's criteria that Early Restoration projects occur in the eight-county Florida panhandle area that deployed boom and was impacted by the Spill.

The property is a public boat launch and docking facility with a single-lane, paved boat ramp, boat dock, picnic area, restroom, and paved parking for 8 vehicles, that is located on a point at the confluence of Lafayette Creek with LaGrange Bayou. The existing concrete boat ramp is approximately 20 feet wide and oriented perpendicular to the shoreline (approximately northwest-southeast). A wooden boardwalk and boat dock extends to the north-northeast of the boat ramp and provides space to accommodate about 10 boats. There is a boardwalk and picnic area to the west of the boat ramp; the boardwalk is approximately 150 feet long and runs along the shoreline on the west side of the point. The shoreline in the project area is armored with rip-rap. The proposed improvements include adding 400 feet of boardwalk and dock space adjacent to the existing docking facility on the east side of the point, to accommodate more and larger vessels.

The total estimated cost to implement this project is \$207,850. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

12.45.2 Project Location

The project is located at the southern terminus of Shipyard Road in Freeport, Florida, in Sections 15 and 22, Township 1-S, Range 19-W, at Latitude: 30° 48' 65.69" North and Longitude: -86° 13' 65.68" West. The activities are to occur between the parking lot and the shoreline. The project area is located in the western Florida Panhandle approximately 40 miles east of Pensacola and has access to the Gulf of Mexico via LaGrange Bayou and Choctawhatchee Bay (Figure 12-12).



Figure 12-12. Vicinity and project location.

12.45.3 Construction and Installation

The proposed project improvements include expanding the dock by 400 feet at the boat ramp to accommodate larger vessels and additional vessels. Potential impacts are currently being evaluated. All permit conditions and appropriate BMPs would be followed to minimize potential adverse impacts to species.

In addition to the existing boardwalk and docking facility, there is an existing, single-lane boat ramp at the site, along with a gazebo, restroom building, 8 trailer parking spaces, and landscape planting. These site improvements would remain in their current condition following completion of the proposed project.

12.45.3.1 Construction Methods

The proposed Florida FWC Strategic Boat Access project would improve the existing Lafayette Creek boat dock in Walton County. The boat dock would be extended by 400 feet at the boat ramp to accommodate larger vessels and additional vessels.

The property is a public boat launch and docking facility with a single-lane, paved boat ramp, boat dock, picnic area, restroom, and paved parking for 8 vehicles, that is located on a point at the confluence of Lafayette Creek with LaGrange Bayou. The existing concrete boat ramp is approximately 20 feet wide

and oriented perpendicular to the shoreline (approximately northwest-southeast). A wooden boardwalk and boat dock extends to the north-northeast of the boat ramp and provides space to accommodate about 10 boats. There is a boardwalk and picnic area to the west of the boat ramp; the boardwalk is approximately 150 feet long and runs along the shoreline on the west side of the point. The shoreline within the project area is armored however; the shoreline in the surrounding areas is predominantly natural. There are no seagrass, mangroves, or corals present within the project area.

As part of the existing FDEP permit to the Walton County Board of County Commissioners for this project, Permit No.: 66-0269475-003-EI, some of the project construction tasks and methods are identified. Constructing the additional boardwalk will require a mix of in-water and land-based work. The total project construction would require 168 8" diameter tip pilings with a 35' length. The pilings will be pushed down the first 25 feet and driven (hammered) the final 5' into the layer of existing hardpan. The top 20 to 25' of soil is organic much that has no resistance or capacity. An alternate method that may work is a vibratory hammer instead of driving which may work in the dense sand hardpan layer.

Prior to starting construction, the existing FDEP permit indicates roughly 800' of turbidity barrier will be installed in Lafayette Creek to minimize direct water quality impacts, primarily turbidity increases. These turbidity barriers will have weighted skirts extending to within one foot of the bottom and would remain in place and be maintained until the authorized work has been completed and all erodible materials have been stabilized.

There will not be any pilings removed as part of the project. The northern most slip has existing tie off pilings for the Governor Stone which has been previously kept at the facility. The Governor Stone is the oldest working Schooner in the State and is provided port at the facility at no cost during different portions of the year. Work would be coordinated so that the Governor Stone is not in port. There are three (3) derelict vessels that would need to be removed as part of the project as they are sitting in the proposed footprint of the dock.

Methods for limiting the impact of the land-based portions of the project construction would include, but may not be limited, to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site. Immediately after completion of the final grading of land surface, all slopes, land surfaces, and filled areas would be stabilized using sod, degradable mats, barriers, or a combination of similar stabilizing materials to prevent erosion. Erosion control measures would remain in place and be maintained until all authorized work is completed and the site has been stabilized. During and following construction, all construction waste materials would be disposed of appropriately.

Because of the lack of submerged aquatic vegetation (SAV) at the site the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) are not presumed to be relevant so specific guidelines, such as the requirement that pilings for the dock expansion be placed at a minimum of 10 feet apart, are not presumed to be applicable.

During all in-water construction activity, the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006) would be implemented and adhered to. Significant aspects of these provisions include stopping operation of any equipment if sea turtles or smalltooth sawfish come within 50 feet of the equipment until the time when animals leave the project area of their own volition.

Project work would be completed in approximately 1 year.

12.45.4 Operations and Maintenance

Long-term operations and maintenance of the improved facilities would be provided by the City of Freeport as part of their regular public facilities maintenance activities. These activities would include insuring that the boat ramp and docks, restroom facilities, and parking lot are in working order and defective areas would be fixed as appropriate. It is anticipated that regular operation and maintenance may include pavement repairs, replacement of boards on the docks and boardwalk, and repairs to restroom facilities.

Monitoring would be conducted to ensure project plans and designs were correctly implemented. Monitoring would be designed around the project goals and objectives. Performance monitoring would evaluate the construction of the proposed improvements. Specific parameters would include: completion of construction as designed and permitted. During the one year construction performance monitoring period, the Florida Trustees' Project Manager would visit the site twice to record the number of users. Following the one year construction performance monitoring period, the City of Freeport would monitor the human use activity at the site. City of Freeport personnel would visit the site twice a year to count the number of users at the site. The visitation numbers would then be provided to the Florida Department of Environmental Protection (FDEP).

Literature reviews indicate that sea turtles (loggerhead [*Caretta caretta*], green [*Chelonia mydas*], leatherback [*Dermochelys coriacea*], Kemp's ridley [*Lepidochelys kempii*], and hawksbill [*Eretmochelys imbricata*]), West Indian manatee (*Trichechus manatus*), and Gulf sturgeon (*Acipenser oxyrinchus desotoi*) could occur in the project area (see Section 3.2). With the exception of the Gulf sturgeon, the project area is not designated as critical habitat for any of the species.

Bald eagles are known to nest in Florida, and four bald eagle nests have been identified in Walton County. One nest exists within approximately 3 miles of the project site and was last known to be active in 2012 (FWC 2013). Golden eagles are not present along the Gulf Coast.

12.45.5 Affected Environment and Environmental Consequences

Under the National Environmental Policy Act, federal agencies must consider environmental impacts of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.45.5.1 No Action

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.45.5.2 *Physical Environment*

12.45.5.2.1 *Geology and Substrates*

Affected Resources

The project lies in the Gulf coastal lowlands physiographic province (Allen et al. 2005). The landscape of the Gulf coastal lowlands is comprised of a relatively flat terrain, ranging in elevation from 0 to about 50 feet above mean sea level. Soils in the coastal panhandle of Florida consist predominately of medium to fine grain sands and silts associated with recent Pleistocene formations.

The soils in the project area have been identified and mapped by the U.S. Department of Agriculture (USDA 1984). The USDA data identified soil map unit 8 Chipley-Foxworth-Albany as the only soil unit mapped within the project area. Chipley-Foxworth-Albany soils are nearly level to gently sloping, somewhat poorly drained or moderately well drained soils some are sandy throughout and others are sandy and have a loamy subsoil. Chipley soils are gently sloping, poorly drained soils that border drainages and flatwoods in upland areas. The Foxworth series consists of very deep soils that formed in sandy marine or eolian sediments. These soils are on broad, nearly level, and gently sloping uplands and sloping to steep side slopes leading to drainage ways. Runoff is very slow and permeability is rapid or very rapid. Foxworth sands are moderately well-drained soils and, like Chipley soils, are located in flatwoods of upland areas. Albany soils are very loamy, somewhat poorly drained and exist on seepage slopes in upland areas.

Environmental Consequences

Mechanized equipment and hand tools would be used to complete the construction of the dock. Some excavation of soils would occur; however, adverse impacts to geology and substrates would be minor. Disturbance would be detectable, but would be short term, small, and localized. There would be no long-term changes to local geologic feature. Erosion and/or compaction may occur in localized areas during construction; appropriate erosion control and mitigation measures would be implemented prior to and during construction. Overall, the project's adverse impacts related to soil compaction and erosion during construction would be short term and minor. In the long term, the project would not be expected to adversely impact geology, soils, or substrates.

12.45.5.2.2 *Hydrology and Water Quality*

Affected Resources

There is an abundant supply of both surface and groundwater along the coastline of the Florida Panhandle. The region has seven major watersheds, all of which have been identified as priorities under the Surface Water Management and Improvement (SWIM) program. Water quality protection is the underlying goal of SWIM, along with the preservation and restoration of natural systems and associated public uses and benefits (NFWMD 2011). The project is located within the Choctawhatchee Bay Watershed. The Choctawhatchee River is the largest river in the area, and its basin encompasses approximately 4,748 square miles in Alabama and Florida (Rivers of Alabama 2013). The

Choctawhatchee River flows into Choctawhatchee Bay, a 129 square mile estuary that empties into the Gulf of Mexico at East Pass near Destin, Florida.

Groundwater in Walton County exists in both unconfined and confined aquifers. The formations underlying the area are grouped into six major hydrogeologic units, based on permeability. These are, in descending order, the sand-and-gravel aquifer; the Pensacola Clay confining bed; the upper limestone of the Floridan Aquifer; the Buccatunna Clay confining bed; the lower limestone of the Floridan Aquifer; and the Claiborne confining unit (Barr 1983). The sand-and gravel aquifer in the vicinity of the project area is about 20 feet deep and discharges to the Choctawhatchee River and Choctawhatchee Bay (NFWMD 2000). The principal source of potable water in the area around Choctawhatchee Bay is the Floridan Aquifer. Water in the aquifer occurs under confined or artesian conditions throughout the area (Barr 1983).

A review of the National Wetland Inventory (NWI) wetland mapper did not identify any wetlands within the project site. It did identify the open water of the canal.

Environmental Consequences

With required mitigation in place, impacts to water quality are expected to be minimal. All permit conditions requiring mitigation measures for siltation, erosion, turbidity and release of chemicals would be strictly adhered to. During construction, Best Management Practices and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts. The FDEP permit conditions require erosion and turbidity mitigation measures. These include:

- Install floating turbidity barriers
- Install erosion control measures along the perimeter of all work areas
- Stabilize all filled areas with sod, mats, barriers or a combination
- If turbidity thresholds are exceeded the project must stop, stabilize the soils, modify the work procedures, and notify the FDEP.

The FDEP permits also constitute a Certification of Compliance with State Water Quality Standards under Section 401 of the Clean Water Act, which means that the project would comply with state water quality standards and other aquatic resource protection requirements. After construction, increased boat traffic from boats launching and landing at the ramp could result in minimal impacts to surface water quality. Boat wakes created by additional boat traffic that could increase shoreline erosion would be controlled through no-wake or speed zones to mitigate shoreline erosion along Lafayette Creek.

Impacts from chemicals that could potentially be released from sources such as construction equipment and boats are expected to be minor. Required spill containment measures would be implemented for applicable construction activities. The FDEP permits require spill containment protection and mitigation measures such as:

- No boat repair or fueling facilities over the water,
- Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting

Best Management Practices along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts associated with construction activities. Best Management Practices for erosion control would be implemented and maintained at all times during construction to prevent siltation and turbid discharges into waters of the state. Silt and sedimentation control measures would be installed and properly maintained to protect water quality resources. Given that there would be no substantial change in uses at the project site following implementation of the proposed enhancement activities, it is anticipated that there would be no long-term negative impacts to water resources. The implementation of the proposed project would therefore result in short-term minor negative and long-term beneficial impacts on water resources. This project would not impact groundwater. There would be no adverse impacts to hydrology or water quality. Overall, potential impacts to water resources are expected to be minor, temporary and localized in nature.

The proposed discharge of dredged or fill material into waters of the United States, including wetlands, or work affecting navigable waters associated with this project is currently being coordinated with the U.S. Army Corps of Engineers (USACE) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA). Coordination with the USACE and final authorization pursuant to CWA/RHA will be completed prior to project implementation.

12.45.5.2.3 Air Quality and Greenhouse Gas Emissions

Affected Resources

The Clean Air Act (CAA) requires the State of Florida to adopt ambient air quality standards to protect the public from potentially harmful amounts of pollutants. Six common air pollutants (also known as "criteria pollutants") are regulated by the U.S. Environmental Protection Agency (USEPA) and the states under the CAA. They are particle pollution (often referred to as particulate matter), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. The FDEP has designated areas meeting the state's ambient air quality standards by their monitoring and modeling program efforts, (i.e., attainment areas). Florida has no nonattainment areas within the panhandle region.

Currently, Walton County is classified by USEPA as an attainment area in accordance with the National Ambient Air Quality Standards (NAAQS). Walton County is not located within an USEPA Class 1 air quality area; however, St. Marks National Wildlife Refuge, located approximately 118 miles to the southeast, is designated as a Class I air quality area (USEPA 2013a). Class I air quality areas are afforded special protection under the Clean Air Act. Any proposed new or modified sources of air pollution locating within approximately 200 miles (300 km) of a Class I air quality area are asked to consult with the Federal Land Manager to determine whether emission impact modeling to the Class I area should be conducted and submitted to the Federal Land Manager for review (USFWS 2013). Therefore, the proposed boat dock improvements would be subject to consultation regarding potential emissions impacts on St. Marks National Wildlife Refuge. Factors to be considered include distance to the Class I area, magnitude of emissions, current conditions of air sensitive resources in the Class I area, potential for source growth in an area or region, prevailing meteorological conditions, and cumulative impacts of multiple sources to air sensitive resources.

Beginning in 2011, the CAA also regulates emissions of greenhouse gases (GHG) (USEPA 2013b). The USEPA's GHG Reporting Rule establishes mandatory GHG reporting requirements for sources that emit 25,000 metric tons or more of carbon dioxide equivalent (CO₂e) per year (USEPA 2013b).

Environmental Consequences

Project implementation would require the use of heavy equipment for up to 8 hours per day over a 1-year construction period. This would temporarily affect air quality and elevate greenhouse gas levels in the project vicinity due to emissions and increased dust from operation of construction vehicles and equipment. Any air quality impacts that would occur would be localized, limited to the construction phase of the project, and limited by the size of the project. Therefore, impacts to air quality would be negative but minor and short-term. The project would have no long term impacts on air quality.

Engine exhaust from backhoes, trucks, pile drivers, and other equipment would contribute to an increase in greenhouse gas emissions. Table 12-31 describes the likely greenhouse gas emission scenario for the implementation of this project.

Based on the assumptions described in Table 12-31 below, GHG emissions would not exceed 25,000 metric tons per year. Given the projected construction-phase GHG emissions, along with the small scale and short duration of the project, predicted impacts from greenhouse gas emissions would be short-term and minor.

12.45.5.2.1 Noise

Affected Resources

Noise can be defined as unwanted sounds and sound levels, and its impacts are interpreted in relationship to impacts on nearby persons and wildlife. The Noise Control Act of 1972 (42 U.S.C. 4901 to 4918) was enacted to establish noise control standards and to regulate noise emissions from commercial products such as transportation and construction equipment. The standard measurement unit of noise is the decibel (dB), which represents the acoustical energy present. Noise levels are measured in A-weighted decibels (dBA), a logarithmic scale which approaches the sensitivity of the human ear across the frequency spectrum. A 3-dB increase is equivalent to doubling the sound pressure level, but is barely perceptible to the human ear. Table 12-32 shows typical noise levels for common sources expressed in dBA. Noise exposure depends on how much time an individual spends in different locations.

Table 12-31. Greenhouse gas impacts of the proposed project.

CONSTRUCTION EQUIPMENT	NO. OF HOURS OPERATED ³³	CO2 (METRIC TONS) ³⁴	CH4 (CO2E) (METRIC TONS) ³⁵	NOX (CO2E) (METRIC TONS)	TOTAL CO2E (METRIC TONS)
Tractor trailer	1920	81.6	0.048	0.48	82.13
Pile Driver	1920	81.6	0.048	0.48	82.13
Backhoe	1920	81.6	0.048	0.48	82.13
Dumptruck ³⁶	1920	81.6	0.048	0.48	82.13
Cement Truck	1920	81.6	0.048	0.48	82.13
TOTAL					410.65

Noise levels in the project area vary depending on the season, time of day, number and types of noise sources, and distance from noise sources. Existing sources of noise in the project area include motor vehicle traffic, recreational boating, commercial vessels, overhead aircraft and ambient natural sounds such as wind, waves, and wildlife.

Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise sources or levels due to the project. Noise-sensitive receptors in the project area include residential communities, recreational uses and wildlife.

Table 12-32. Common noise levels.

NOISE SOURCE OR EFFECT	SOUND LEVEL (DBA)
Rock-and-roll band	110
Truck at 50 feet	80
Gas lawnmower at 100 feet	70
Normal conversation indoors	60
Moderate rainfall on foliage	50
Refrigerator	40
Bedroom at night	25

Source: Adapted from BPA 1986, 1996

³³ Emissions assumptions for all equipment based on 240 8-hour days of operation per piece of equipment over a 12-month construction period.

³⁴ CO₂ emissions assumptions for diesel and gasoline engines based on USEPA 2009.

³⁵ CH₄ and NO_x emissions assumptions and CO₂e calculations based on USEPA 2011.

³⁶ Construction equipment emission factors based on USEPA NONROAD emission factors for 250hp pieces of equipment. Data was accessed through the California Environmental Quality Act Roadway Construction Emissions Model.

Environmental Consequences

Instances of increased noise are expected during the construction phase associated with the restoration project. The proposed project would generate construction noise associated with equipment during construction and placement of the boardwalk and docking facility. Construction equipment noise is known to disturb fish, marine mammals and nesting shorebirds (discussed below). Construction noise would also create a potential nuisance to visitors and residents in areas adjacent to project construction activities. Construction noise would be temporary and limited to daytime hours, and the construction period is not anticipated to last more than one year. Because construction noise would be temporary, negative impacts to the human environment during construction activities would be short-term and minor, as they would likely attract attention but would not result in visitors changing their activities.

After completion of the project, noise sources would be expected to include the existing sources described above, and noise levels would return to pre-project conditions. There exists potential for increased boat and automobile traffic resulting from improvements to the dock and related facilities, which would result in a slight increase in noise levels in the vicinity. Overall, long-term noise impacts from boating and other recreational activities would remain minor. Likewise, noise impacts from commercial vessels, highway traffic, and ambient natural sounds would be minor.

12.45.5.3 Biological Environment

12.45.5.3.1 Living Coastal and Marine Resources

Wildlife

Affected Resources

The site is developed with existing structures including a paved boat ramp, boardwalk, and docking facility and a large, paved parking lot. The banks along the shoreline are armored. The structures cover approximately 12,475 square feet over water. The existing docks provide approximately 10 locations for boats to dock. The project is located on Lafayette Creek which for the most part consists of natural stream habitat and natural substrate. The habitat surrounding the project is a mixture of open water and shoreline habitat along with developed and undeveloped upland forested and wetland communities. The shoreline within the project area is armored however; the shoreline in the surrounding areas is predominantly natural. There is no seagrass, mangroves, or corals present within the project area. In addition, no critical habitat exists within the marina.

The majority of the project area consists of a paved parking lot, and a concrete boat ramp is in place. Areas around the perimeter of the parking lot are vegetated with grass and landscape planting. These areas provide little to no wildlife habitat function.

The extent of riparian habitat within the project site is limited, as the bank is armored with riprap and the upland extent of functional riparian habitat is limited by existing impervious surfaces. The riparian area within the proposed project site is mostly devoid of vegetation, with the exception of a few scattered trees and patches of ruderal grass/forb habitat within the riparian buffer zone. Impervious surfaces include the existing parking lot and roadway, compacted soil, and boat ramp.

Estuaries are extremely diverse and complex systems and provide spawning, nursery, and forage grounds for many species of fish and invertebrates. Fish species within Choctawhatchee Bay resident fish species include species such as bay anchovy, code goby, sheepshead minnow, silversides, and silver perch (NOAA, 1997). Other transient species include Atlantic croaker, blue runner, bluefish, Gulf flounder, Gulf Menhaden, pinfish, red drum, Spanish mackerel, spotted seatrout, striped mullet (FDNR 1991; NOAA 1997). Some of the invertebrates found within the bay include bay scallop, bay squid, blue crab, brown shrimp, eastern oyster, grass shrimp, and pink shrimp, as well as various species of marine worms and amphipods etc. (FDNR 1991; NOAA 1997). Within the bay “hard” habitats such as piers, docks, seawalls, and rock jetties also contain tropical species such as cocoa damsels, angelfishes, parrotfishes, spadefishes, and butterfly fishes. Wrasses, groupers, and snappers are also found along these hard substrates (FDNR 1991).

In and around Choctawhatchee Bay a large number of bird species occur. Many are migratory and are protected by the Migratory Bird Treaty Act (MBTA). Species that may occur in the vicinity of the marina include species of herons, egrets, gulls, and terns. The project site does not provide habitat for piping plover or red knot.

Environmental Consequences

As noted above, there is no seagrass located within the footprint of the proposed project, so there would be no direct impacts. Given that no seagrass was identified and that in-water BMPs, such as sediment curtains, would be employed to contain re-suspended sediments the proposed project would have no effect on seagrass.

During construction there could be local, short-term minor adverse impacts on both fish and macroinvertebrate species, including shellfish, in the vicinity of the project. Fish species could be temporarily displaced from habitat in the area of construction due to noise and vibration impacts. Feeding success could also be impacted through increased turbidity; however, most species are highly mobile and would move out of the area to neighboring waters where feeding would be less problematic. Some mortality of sedentary and less mobile species and life stages could occur. However, given the small aerial extent of the impacted area compared to the available habitat within Choctawhatchee Bay and Lafayette Creek, the overall impact on species would be minor.

Additionally, once construction was complete, fish and invertebrates species would be expected to readily recolonize the area. Some beneficial impacts to species would also occur. Piers and pilings provide a hard substrate habitat that otherwise would not exist in the area. As noted under the affected environment, such hard substrates provide habitat for species such cocoa damsels, angelfishes, parrotfishes, spadefishes, and butterfly fishes. Wrasses, groupers, and snappers also can be found among this type of habitat as well (FDNR 1991). As part of the project, information would be made available at the entrance to the pier on best practices on catch and release and other fishing practices (e.g., placing cut line and hooks for disposal in trash bins) designed to limit potential adverse impacts to fish and other marine species. Trash receptacles would also be placed on the pier to help repotted on the fishing pier to help anglers comply with the recommendations as well as keep other trash out of the water that could otherwise cause adverse impacts on species.

Although bird species that use the waters around the marina for foraging or use the marina area itself for loafing are likely habituated to human activity, it is likely that they would experience some short-term and minor impacts from the increased human activity and the noise from construction activities. However, there is ample suitable habitat in surrounding areas for the birds to use, and impacts would only occur during the construction period. Nesting is not known at the marina for migratory birds, however, preconstruction nesting surveys would be conducted and if evidence of nesting is found, appropriate conservation measures would be taken. Therefore, impacts would be short-term and minor.

Protected Species

Affected Resources

The Trustees have reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA for species managed by USFWS. For this, the Trustees first reviewed the species list for Walton County, Florida³⁷. Table 12-33 presents a summary of these potentially affected species/critical habitats and the nature of the potential impact that could result from project implementation.

Table 12-33. Potential Impacts to Species/Critical Habitats managed by USFWS

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
West Indian manatee	<p>The counties in the project area are not part of the 36 Florida counties that are identified as being counties where manatees regularly occur in coastal and inland waters (U.S. Department of the Interior, 2011). However, manatees could be present in the project waters.</p> <p>The main risk to manatees during implementation of this project would come from boat collisions in the Bay, after launching at the ramp, which could result in harm or mortality. Manatees are not expected to be present in Lafayette Creek therefore noise from construction and use of siltation or turbidity barriers are not expected to affect this species. However, conservation measures will be implemented nonetheless to ensure adverse impacts are minimized to a discountable level if a manatee were to be present in the construction zone.</p>
Gulf sturgeon	NMFS was consulted on Gulf sturgeon and its Critical Habitat in the estuarine environment. As a result, Gulf Sturgeon was not considered in the consultation with the USFWS.

In addition to the protected species managed by USFWS, the Trustees reviewed the proposed projects and associated actions for potential impacts to the following protected species (status indicated) and their associated critical habitat, if appropriate, managed by NMFS:

- Gulf Sturgeon, *Acipenser oxyrinchus desotoi*, Threatened
- Smalltooth Sawfish, *Pristis pectinata*, Endangered
- Green Sea Turtle, *Chelonia mydas*, Endangered
- Loggerhead Sea Turtle, *Caretta caretta*, Threatened
- Hawksbill Sea Turtle, *Eretmochelys imbricata*, Endangered

³⁷ The U.S. Fish and Wildlife, Panama City office website (<http://www.fws.gov/panamacity/specieslist.html>) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

- Leatherback Sea Turtle, *Dermochelys coriacea*, Endangered
- Kemp's Ridley Sea Turtle, *Lepidochelys kempii*, Endangered.

Additional information for some of these species is provided below.

Smalltooth Sawfish (*Pristis pectinata*)

Smalltooth sawfish (*Pristis pectinata*) do not typically use northern Gulf of Mexico waters (NMFS 2013b).

Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)

Gulf sturgeon are restricted to the Gulf of Mexico and its drainages, occurring primarily from the Pearl River in Louisiana to the Suwannee River, in Florida (NMFS 2009). Adult fish reside in rivers for 8 to 9 months each year and in estuarine or Gulf of Mexico waters during the 3 to 4 cooler months of each year (NMFS 2009). Important marine habitats include seagrass beds with sand and mud substrates (Mason and Clugston 1993).

Gulf sturgeon critical habitat was jointly designated by the NMFS and USFWS on April 18, 2003 (50 C.F.R. 226.214). Critical habitat was designated based on seven primary constituent elements (PCEs) essential for its conservation, as defined in the 2003 *Federal Register*.

These seven elements are:

1. Abundant food items, such as detritus, aquatic insects, worms, and/or mollusks, within riverine habitats for larval and juvenile life stages; and abundant prey items, such as amphipods, lancelets, polychaetes, gastropods, ghost shrimp, isopods, mollusks, and/or crustaceans, within estuarine and marine habitats and substrates for subadult and adult life stages;
2. Riverine spawning sites with substrates suitable for egg deposition and development, such as limestone outcrops and cut limestone banks, bedrock, large gravel or cobble beds, marl, soapstone, or hard clay;
3. Riverine aggregation areas, also referred to as resting, holding, and staging areas, used by adult, subadult, and/or juveniles, generally, but not always, located in holes below normal riverbed depths; these are believed necessary for minimizing energy expenditure during freshwater residency and possibly for osmoregulatory functions;
4. A flow regime (i.e., the magnitude, frequency, duration, seasonality, and rate-of-change of freshwater discharge over time) necessary for normal behavior, growth, and survival of all life stages in the riverine environment, including migration, breeding site selection, courtship, egg fertilization, resting, and staging, and for maintaining spawning sites in suitable condition for egg attachment, egg sheltering, resting, and larval staging;
5. Water quality, including temperature, salinity, pH, hardness, turbidity, oxygen content, and other chemical characteristics necessary for normal behavior, growth, and viability of all life stages;
6. Sediment quality, including texture and chemical characteristics, necessary for normal behavior, growth, and viability of all life stages; and
7. Safe and unobstructed migratory pathways necessary for passage within and between riverine, estuarine, and marine habitats (e.g., an unobstructed river or a dammed river that still allows for passage).

Migratory Birds and Bald Eagles:

The Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711) decreed that all migratory birds and their parts (including eggs, nests, and feathers) were fully protected. The migratory bird species protected by the Act are listed in 50 CFR 10.13. More than 250 species of birds have been reported as migratory or permanent residents along the Florida panhandle, several of which breed there as well. These birds can be grouped generally as (1) species that occur year-round, both nesting and overwintering, (2) species that nest during the warm season and overwinter to the south, (3) species that overwinter and nest further north, and (4) species that pass through during spring migrations to more northern nesting sites and/or during fall migrations to overwintering areas. Different populations of the same species sometimes exhibit more than one type of migratory behavior.

The FWC conducts statewide bald eagle nesting territory surveys annually. Two recorded active bald eagle nests are identified within approximately 2.96 and 4.37 miles from the project site (<https://public.myfwc.com/FWRI/EagleNests/nestlocator.aspx#search>). Bald eagles are known to nest within 1 mile of the project site (FDEP, personal communication, September 26, 2013). The bald eagle was delisted by the USFWS and is not listed as threatened or endangered by the FWC. The bald eagle is, however, protected by state law pursuant to 68A-16, Fla. Admin. Code and by the U.S. government under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Bald eagles feed on fish and other readily available mammalian and avian species and are dependent on large, open expanses of water for foraging habitat. In Florida, conservation measures to protect active nest sites during nesting season must be considered to reduce potential disturbances of certain project activities. If bald eagles are found nesting within 660 feet of a proposed construction area, then activities would need to occur outside of nesting season or coordination with the USFWS would occur to determine if a permit is needed, and Florida's *Bald Eagle Management Plan* guidelines would be followed (FWC 2008).

The proposed project was also reviewed for impacts to bald eagles and migratory birds in accordance with the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-712), respectively. Table 12-34 provides a summary of the different migratory bird groups specifically addressed by this review and summarizes the potential impacts to these groups and associated habitats that could result from the implementation of this project.

Table 12-34. Potential project impacts to different migratory bird groups

SPECIES	BEHAVIOR	SPECIES/HABITAT IMPACTS
Wading birds, songbirds, and woodpeckers	Foraging, feeding, resting, nesting	These species groups collectively forage, feed, rest, and may nest and in the types of habitats consistent with some of the areas near the proposed project location. As such, they may be impacted locally and temporarily by the project. It is expected that they would be able to move to another nearby location to continue foraging, feeding and resting activities. Therefore the Trustees do not anticipate impacts. The short duration of the construction is also unlikely to impact nesting activity as noise and disruption from construction is not expected to be substantially greater than noise levels associated with the site being an active boat ramp

Considering the nature of the potential project and the potential impacts to migratory bird groups and associated habitats, a number of conservation measures were identified and will be followed to minimize potential impacts. These measures are summarized in Table 12-35.

Table 12-35. Conservation measures to minimize impacts to migratory bird groups

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Wading birds, songbirds, and woodpeckers	Migratory birds are likely to be foraging and resting in the general vicinity of the project site. Care will be taken to minimize noise and physical disruptions near areas where foraging, resting, or nesting birds are encountered. All disturbances will be localized and temporary. The general behavior of these birds is to mediate their own exposure to human activity when given the opportunity, which they will have. Roosting should not be impacted because the project will occur during daylight hours only. However, if evidence of nesting is suspected or observed, FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.

Essential Fish Habitat

EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seeks to minimize adverse impacts on habitat caused by fishing and non-fishing activities. The NMFS has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column. The EFH within the project area include emergent wetlands, mud substrate, and estuarine water columns for species of fish, such as red drum, brown shrimp, pink shrimp, and white shrimp. There are no marine components of EFH in the vicinity of the project site.

Table 12-36 provides a list of the species that NMFS manages under the federally Implemented Fishery Management Plan in the vicinity of the Walton County, Lafayette Creek Boat Ramp site and LaGrange Bayou which outlets to Choctawhatchee Bay.

Table 12-36. Federally managed fisheries with designated Essential Fish Habitat (EFH) in the proposed project area.

EFH CATEGORY	SPECIES
Coastal Migratory Pelagics of the Gulf of Mexico AND South Atlantic	
	Cobia
	King Mackerel
	Spanish Mackerel
Gulf of Mexico Red Drum	
	Red Drum
Gulf of Mexico Shrimp	
	Brown Shrimp
	Pink Shrimp
	Rock Shrimp
	White Shrimp
Reef Fish Resources of the Gulf of Mexico	
	Almaco Jack
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper

EFH CATEGORY	SPECIES
	Blueline Tilefish
	Cubera Snapper
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper
	Red Snapper
	Scamp
	Silk Snapper
	Snowy Grouper
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper

Environmental Consequences

Section 7 Consultation

The USFWS reviewed the proposed Oakshore Drive Pier project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA. On February 6, 2014, the review of potential impacts to species managed by USFWS was completed (Reynolds, 2014). The USFWS concurred with the Trustees' determination that the proposed project may affect, but is not likely to adversely West Indian manatee

The Trustees' review of the potential impacts of the project for protected species managed by NMFS determined the proposed action "may affect, but is not likely to adversely affect" the following species and associated critical habitats in the project implementation area:

- Gulf Sturgeon - The proposed may project affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Smalltooth Sawfish – The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Green Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Loggerhead Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.

- Hawksbill Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Leatherback Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Kemp's Ridley Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.

Concurrence from NMFS with the Trustees' conclusions for these species and associated critical habitats is still pending.

The Trustees also evaluated the potential for take of Marine Mammals under the MMPA and due to these species' mobility and the implementation of NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006), *Standard Manatee Conditions for In-Water Work* (USFWS 2011), and USFWS recommended conservation measures for listed species and other trust resources, take of marine mammals under the MMPA is not anticipated.

Migratory Birds and Bald Eagle:

Bald eagles are not present at the project location so will not be affected. At the same time, implementation of the conservation measures previously identified in the review of potential impacts to migratory birds will prevent take of the identified migratory bird groups.

Essential Fish Habitat

The Trustees' review of potential impacts from the project to EFH concluded the project is not likely to adversely affect EFH. The proposed dock construction will take place adjacent to the existing boat ramp. A very small area of benthic habitat may be converted with the placing of pilings for the expanded dock, however, this will take place directly adjacent to the boat ramp, where the habitat is already likely to be significantly disturbed as a result of both the boat traffic to and from the boat ramp and use of the existing boat launch structure and shoreline habitat.

On March 17, 2014 NMFS completed its evaluation of potential EFH impacts and concluded that the project is not likely to adversely affect EFH and any impacts would be minor and brief (Fay, 2014).

Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem with the project area, and possibly expand out into adjacent areas after the initial introduction. The invasive species threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 3 described more about the regulations addressing invasive species, pathways, impacts, and prevention. At this time specific invasive species that may be present on the project site or could be introduced through the project have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.45.5.4 *Human Uses and Socioeconomics*

12.45.5.4.1 *Socioeconomics and Environmental Justice*

Affected Resources

The City of Freeport, similar to the rest of the Florida Panhandle, relies on the coastal waters of the Gulf of Mexico to provide a variety of economic and social benefits to its residents and visitors. The coastal ecosystems in the project area support a wide variety of commercial and recreational activities that contribute significantly to the State's economy. Sport and commercial fisheries are some of the most notable economic highlights, within the region and the State. The marine environments within the area also provide essential transportation links, support a variety of water-dependent facilities, and offer an array of recreational opportunities that attract thousands of visitors to the area each year (FDEP 1994).

The estimated 2011 median household income in the City of Freeport was \$32,094(City-data.com 2013). The major employment sectors in the Crestview-Fort Walton Beach-Destin area, which includes the project site, are government; leisure and hospitality; trade, transportation, and utilities; and professional and business services (BLS 2012).

Environmental Consequences

No adverse socioeconomic impacts are expected as a result of the proposed project. The proposed project would benefit the local economy during construction through the provision of a small number of construction jobs and associated spending on goods and services by construction workers. Following completion of construction, the project would provide improved facilities to accommodate water-based recreational activities. The improvements to the boat ramp and associated facilities would not measurably change the type or level of use at the site, and therefore are not expected to have any long-term socioeconomic impacts.

12.45.5.4.2 *Cultural Resources*

Affected Resources

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic

properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Environmental Consequences

A complete review of this project under Section 106 of the NHPA is ongoing and would be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within the project area. This project would be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

12.45.5.4.3 Infrastructure

Affected Resources

Infrastructure in the Florida panhandle consists of a network of interconnected structures, support facilities and transportation systems. Physical infrastructure and public services include commonly provided Federal, State, county, parish, municipal, and/or private facilities and utilities that support development and protect public health and safety.

Access to the project site is via Shipyard Road, a two-lane road connecting the site to central Freeport via County Highway 83 (Bay Loop Road). State Highways 20 and 83 are the main transportation arterials in the project area connecting the City of Freeport with the rest of the Florida Panhandle. The closest public airport to the project site is Northwest Florida Beaches International Airport, located approximately 45 miles southeast in Panama City.

Water, wastewater and sanitation services in the project area are provided by the City of Freeport. Electric service is provided by Choctawhatchee Electric Cooperative (CHELCO). Cable television and internet are provided by Mediacom, and phone service is provided by AT&T.

Environmental Consequences

During construction of the boardwalk and boat dock, the proposed project would potentially have minor adverse impacts to infrastructure due to traffic delays and roadway damage associated with construction vehicle traffic; utility service interruptions; and potential accidental damage to utility infrastructure. Following completion of construction, the proposed improvements could lead to an increase in visitor use; however, visitor use is not expected to increase to the point where associated wear on infrastructure would lead to adverse impacts. Overall, the proposed project is expected to have long-term beneficial impacts on infrastructure through the provision of expanded and enhanced docking facilities.

12.45.5.4.4 Land and Marine Management

Affected Resources

Development in Freeport is regulated by the City of Freeport Comprehensive Plan and the City of Freeport Land Development Code. Zoning and land development decisions are subject to approval by the city Council as advised by the Planning Board (City of Freeport 2013). The existing boat ramp, docks and parking lot are situated on land owned by the City of Freeport and zoned for Conservation (CON) use (City of Freeport 2013). Boat ramps are a permitted use in the Conservation district (City of Freeport 2001). Land uses surrounding the site include industrial uses, single-family residential uses, vacant

forested land, and wetlands. Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS. The State of Florida responded and concurred with the federal determination of consistency at this point in the early restoration planning process.

Environmental Consequences

No changes would occur to the current use at the site, or to uses on adjacent and nearby properties. Land ownership would remain the same, and the site would continue to be managed by the City of Freeport as a public boat launch and docking facility. The proposed project would be consistent with the City of Freeport Land Development Code, since it is a permitted use in Conservation districts.

12.45.5.4.5 Aesthetics and Visual Resources

Affected Resources

Lafayette Creek is a tributary of LaGrange Bayou, which in turn connects to Choctawhatchee Bay, a 129-square mile inlet of the Gulf of Mexico located within Okaloosa and Walton Counties. The landscape in the area is characterized by wooded areas, tidal flats, marshes and coastal waterways. Development is relatively sparse in the immediate surrounding area and consists of single-family residences, industrial properties, and vacant land.

Environmental Consequences

Temporary impacts to aesthetics and visual resources would result from implementation of the proposed boat improvements. Construction equipment would be temporarily visible to recreational users. These construction-related impacts to visual resources would be adverse but minor, since the amount of construction equipment required to complete the project would be limited, and construction activities and equipment would be visible to users for a maximum of one year. The proposed project would take place at the site of an existing boat ramp and would not change the overall visual appearance of the site or surrounding area; therefore, no long-term impacts to aesthetics and visual resources are anticipated.

12.45.5.4.6 Tourism and Recreational Use

Florida's beaches contribute greatly to the state's economy, providing benefits to a variety of user groups. Locals and tourists alike spend much time swimming, beachcombing, boating, fishing, diving, kayaking, surfing, and engaging in other active and passive activities near the beach. The areas surrounding Choctawhatchee Bay, like other Florida coastal communities, attract tourists to the unique and diverse wildlife and scenic habitats, abundant fishing opportunities and the sun and surf. The hotels, restaurants, and other retail establishments within the vicinity are heavily dependent upon the revenues generated each year by the millions of residents and tourists that utilize the beach. The Florida Beaches Habitat Conservation Plan noted that Florida's tourism industry represents a \$57 billion industry and 20% of the state's economy. It generates \$3.4 billion a year alone in sales tax revenue (FDEP n.d.).

Environmental Consequences

During the construction period, tourism and recreational use would be negatively impacted by noise and visual disturbances associated with the use of construction equipment. Public access to the boat ramp and docking facility would be limited and potentially prohibited during construction activities. While these temporary inconveniences would result in minor negative impacts on tourism and recreational use, over the long term the project would result in beneficial impacts to tourism and recreational use. Opportunities for ocean-based recreational activity would be enhanced as a result of improved facilities. The project would not be expected to result in a notable increase in the number of visitors, due to its limited scope; however, the project would contribute to an improved experience for visitors and local residents using the boat ramp. Overall, adverse impacts to tourism and recreational use would be short term and minor. Over the long term, the project would result in beneficial impacts to tourism and recreational uses.

12.45.5.4.7 Public Health and Safety and Shoreline Protection

Affected Resources

The management of hazardous materials is regulated under various federal and state environmental and transportation laws and regulations, including the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Emergency Planning and Community Right-to-Know Act, and the Hazardous Materials Transportation Act. The purpose of the regulatory requirements set forth under these laws is to ensure the protection of human health and the environment through proper management (identification, use, storage, treatment, transport, and disposal) of these materials. Some of these laws provide for the investigation and cleanup of sites that have already been contaminated by releases of hazardous materials, wastes, or substances.

The project area lies at the site of an existing boat ramp and gravel parking lot with adjacent residential areas, located along the northern shoreline of Choctawhatchee Bay. A review of the USEPA EnviroMapper revealed that there are no sources of contamination or hazardous materials located on or immediately adjacent to the project site. One potential source of hazardous waste, a shipbuilding facility, was identified approximately 0.25 mile of the project site (USEPA 2013c). No sources of hazardous, toxic and radioactive waste (HTRW) are otherwise known to exist within the project area. Boats launching and landing at the boat ramp could potentially serve as a source of non-point pollution resulting from inadvertent releases of fuel or oil.

Environmental Consequences

Project construction would utilize mechanical equipment that uses oil, lubricants and fuels. The contractor would be required to take appropriate actions to prevent, minimize, and control the spill of construction related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills. If a release should occur such releases would be contained and cleaned up promptly in accordance with all applicable regulations. As a result, no impacts associated with construction-related hazardous materials would be anticipated.

Because of the nature and location of the project, no impacts to public health and safety or shoreline erosion are anticipated as a result of construction activities. The project and its construction are not anticipated to generate hazardous waste or the need for disposal of hazardous waste. In the event of a

fuel or oil spill from construction equipment, all procedures, regulations and laws pertaining to Oil Spill Prevention and Response would be adhered to and the incident would be reported to appropriate agencies. All occupational and marine safety regulations and laws would be followed to ensure safety of all workers and monitors. Therefore, it is anticipated that there would be no impacts to public health and safety from the proposed project.

12.45.6 Summary and Next Steps

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (Walton County Lafayette Creek Boat Dock Improvements) project would improve the existing Lafayette Creek boat dock in Walton County. The proposed improvements include expanding the dock by 400 feet at the boat ramp to accommodate larger vessels and additional vessels. The project is consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project would enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

12.45.7 References

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